

Environmental & Social Report 2014





Gazing at the bright future of man and society through the development and production of transmissions

Connecting the engine to the drive wheel and delivering power smoothly to the road.

The transmission is the "unseen lead", matching the driving conditions with the optimal gear change ratio, which plays a major role in the car's driving and environmental

performance.

We, at JATCO, will strive to develop and produce transmissions that are smoother and more environmentally friendly. Through this activity we not only support the global automotive

industry, but also enhance people's driving lives.



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Editorial Policy

In this, the tenth edition of our Environmental and Social Report, we aim to foster a better understanding of JATCO's approach to contributions to the environment and our society. This report is intended for all of our stakeholders, including customers, suppliers, employees and our local communities. Through this report, we hope to foster a better understanding of JATCO's continued initiatives towards environmental and social improvements, and the contributions they have made. We also hope that your opinions and input will provide an opportunity for us to identify new challenges to address in our future initiatives. We look forward to receiving your honest comments and feedback.

<Website> http://www.jatco.co.jp/ENGLISH

Questions for two members of JATCO's Top Management Team

This is what we would like JATCO to be like.



Questions for the CEO

JATCO's aim toward becoming a "good corporate citizen"

What is the significance of the goal to become the "global No. 1 automatic transmission manufacturer?"

Companies have to continue growing constantly. I think that the raison d'etre of a company is to transform the profits gained through the growth process into value, and to contribute to the sustainable development of society by fulfilling its responsibilities as a corporate citizen.

JATCO is a manufacturer that specializes in the production of automatic transmission systems. To date, we have provided the world many innovative products. Of these, our CVTs have captured 49% of the market share, and we have developed a full line-up that covers vehicles ranging from mini cars to 3.5-liter class vehicles.

Going forward, JATCO continues to occupy a position in the expanding automotive market where it can aim for the top place. That is why we have established the goal of becoming the "global No.1 automatic transmission manufacturer" as we head toward further growth. Our concept of "No.1 in the world" here does not refer to quantitative indicators. Rather, we would like to create an environment where all employees can work dynamically, and to achieve a presence that is recognized by everyone around the world. Our aim is to become a No. 1 company with substance, and a company that will make people think, "I want to work at JATCO."

What is JATCO like as a "good corporate citizen?"

In addition to our domestic development and production bases, JATCO also has development bases in South Korea, the U.S., France, Russia and Spain, as well as production bases in Mexico, China and Thailand. We have expanded our business globally. Depending on the country or region, I believe that there are differences in history, culture, ways of thinking, as well as in the ideal image of a citizen that is expected by society. However, I hope that JATCO will develop a presence that is well loved by local residents, and that people will be glad that JATCO is located there.

Providing employment is a heavy social responsibility that companies carry, while environmental conservation activities such as green procurement and energy/ resource conservation are also of great importance. We must also take care not to neglect giving consideration to local residents, through initiatives such as ensuring safety and preventing noise pollution near production plants. Furthermore, I also believe that we should continue contributing to society in ways that meet the needs of the country or region. Examples of such social contribution activities include cleaning of the local areas, and carrying out volunteer activities at schools and homes for the elderly. We will further strengthen our support systems for such activities going forward.

JATCO has a large number of outstanding employees. When each individual employee takes action with the desire to be of service to the world, I am confident that JATCO will then present an image of a "good corporate citizen."



What is the value that JATCO provides to society?

Going forward, I am certain that automatic transmissions will continue to play an increasingly important role as our trump card for realizing the production of vehicles that are clean and have low fuel consumption. For manufacturing companies, the key to solving social problems is technological prowess.

To date, JATCO has commercialized the world's first forms of technology for reducing CO₂ emissions, such as its CVTs and transmission for hybrid vehicles. Even so, we are keeping up our efforts in the development of transmission technology that can further reduce the burden on the environment. We also have to continue to spur on the evolution of transmission systems so that they can meet the needs of diversifying automotive electric technology, such as electric vehicles and fuel cell vehicles. It is our responsibility to enhance our technological prowess and reflect the needs of customers in our products, in order to provide the innovative products that only JATCO is capable of creating. This is also the value that we provide to society.

To fulfill that responsibility, we have pushed for the evolution of our corporate philosophy and reviewed our code of conduct. By having each individual employee exert his or her leadership qualities, and constantly think of the customer's perspective, we aim to achieve victory on the global stage through our technological prowess. I hope that we can continue to be a company where such capable human resources work together dynamically as a team. This will drive us toward "providing value to our customers, to automotive culture and to society," which is our mission. I believe that this is also the state of JATCO's Monozukuri as we aim to achieve ideal growth as a "good corporate citizen."

Teruaki Nakatsuka President and Chief Executive Officer



Questions for the COO

Striving toward a "society where automobiles and the environment coexist in harmony"

Q What is the role of transmissions in the automotive society in the future?

Global automobile production and ownership volume are expanding mostly in emerging markets, and vehicles with automatic transmission systems in particular are becoming mainstream. Although there are emerging markets where manual vehicles still maintain a large market share, the need for automatic vehicles is expected to increase further in the future.

On the other hand, there are growing concerns about the adverse impact of automobile popularization and the rise in CO₂ emission levels on the environment. As a result, new environmentally friendly technologies, such as hybrid vehicles, electric vehicles, plug-in hybrid vehicles and fuel cell vehicles, are facing increasingly diverse challenges. JATCO, which plays a key role in the automotive industry, is no exception.

One of the answers that we have come up with is the CVT. We have developed products such as the Jatco CVT7 and Jatco CVT8, which have brought about greater improvements in fuel and driving performance through a larger transmission gear ratio coverage, smaller and more compact vehicle sizes, and reduction in friction loss. In Europe, the combination with diesel engines, which have outstanding fuel performance, has been highly appraised. Of course, we have also not forgotten about providing support for electrification. We have a line-up of transmission systems for hybrid vehicles that harness our unique single-motor, dual-clutch system.

As we continue to enhance the basic function of transmission systems, which is to transmit engine torque (power) efficiently to the tires, we will continue to carry out technological innovation from the perspective of "total energy management," in order to effectively utilize energy from the entire vehicle without wasting any of it, through means such as energy recovery. We also aim to achieve greater balance between fuel performance and driving performance.

Q What is demanded of JATCO's Monozukuri?

It is very important to provide environmentally friendly transmission systems, and at the same time, build production and distribution processes that impose a low burden on the environment.

At JATCO, our production processes are constantly evolving as we pursue initiatives such as the introduction of energy conservation facilities, the development of efficient work processes, and the streamlining of production processes. Of course, this stance remains unchanged at our production facilities overseas, including JATCO Mexico, S.A. de C.V., JATCO (Guangzhou) Automatic Transmission Ltd., and JATCO (Thailand) Co., Ltd. While keeping in mind the characteristics of each country and region, such as peripheral infrastructure and energy conditions, we will keep up our global production activities with the aim of providing high quality products in a timely manner at locations close to our customers. Furthermore, from the supply-chain perspective, we are also actively advancing efforts to promote the modal shift for transportation toward railway and ferries (reducing reliance on ground transportation), and to improve carrying efficiency through cargo consolidation. These may be humble and lowkey initiatives, but we believe that such efforts to reduce environmental burden in terms of transportation form an important part of JATCO's activities.

Q What should we strive toward with regard to "automobiles and the environment coexisting in harmony?"

I always tell the employees to carry out their work from an environmental perspective.

When we look at the overall environment of the Earth, we can see that the problem of CO₂ emissions is becoming more serious in tandem with the increase in energy consumption activities in each country. Although economic development is of great importance, it is also our responsibility to ensure that future generations can inherit a healthy natural environment from us. JATCO, as a company, as well as all the employees working here, have to be committed to tackling the problem of global warming as members of the global community.

Of course, it is important to focus on quality and safety as a Monozukuri company. However, I think that constant consideration of the environment is also important when thinking about JATCO's Monozukuri As I have explained so far, the provision of products with excellent environmental performance, and the reduction of environmental burden in production and logistics processes, are the two prongs of JATCO's environmental contribution efforts.

Going forward, JATCO will continue to take an environmental stance, develop human resources who are capable of creating new technologies, and fulfill our responsibility as a corporation. By sharing our stance not only with our employees, but also with JATCO's affiliated companies, I am confident that we will be able to move closer to our goal of realizing a "society where automobiles and the environment coexist in harmony."



Seiji Honda

Seiji Honda Chief Operating Office FY 2013 Targets and Results

Commitment to Continually Improving Business Operations

Committed to continually red PDCA Cycle.

At JATCO, we have initiatives each year to reduce environmental load. We call these initiatives "Environmental Objectives", and we strive to achieve them. By looking at the yearly results of previous initiatives, we are able to set goals for the following years, helping us to constantly improve our environmental performance.

Environmental objectives	Items	Targets	FY 2013 Results	Evaluation	FY 2014 Goals
Continued improvement of the Environmental Management System	Periodic reviews Periodic reassessment audit: Continue registration Periodic reassessment audit: Continue registration Continued improvement of the Environmental Management System Periodic reviews Image: Periodic reassessment audit: Continue registration Image: Periodic reassessment audit: Continue registration Continued improvement of the Environmental Management System Image: Periodic reassessment audit: Continue registration Image: Periodic reassessment audit: Continue registration		0	 Periodic reassessment audit: Continue registration Internal environmental audits: 1 Environmental Integration Committee meetings: 2 Management reviews: 1 	
	Internal environmental auditor training	■Required staff	3 persons have completed the course	0	■Required staff
	Zero notices from the government and public offices	Number of notices: 0	Number of notices: 0	0	Number of notices: 0
Compliance with laws	Continued management of significant environmental aspects	Percentage of periodic revisions: 100%	Number of periodic revisions: 100%	0	Number of periodic revisions: 100%
for environmental issues	Environmental law- related training	Number of claims: 0	■ Number of claims: 0	0	Number of claims: 0
	Prevention of environmental incidents	Class B accidents: 7	Class B accidents: 3	0	Class C accidents: 12
	Implementation of energy- saving measures Energy per unit of net sales (CO ₂ conversion)	■53.06t- CO ₂ /100 million yen	■ 46.32t- CO₂/100 million yen	0	■46.57t- CO ₂ /100 million yen
Effective use of resources	Implementation of waste reduction measures Reduction of general waste emission rate	2.0% reduction compared to FY 2012	6.0% reduction compared to FY 2012	0	■2.0% reduction compared to FY 2013
	Recycling rate	■Maintain 100% rate	■Maintain 100% rate	0	■Maintain 100% rate
Technological	Eco-friendly design (contributions to environmental protection and automobile fuel efficiency improvements)	Individual (product) challenge targets: 100% achievement rate	 Individual (product) challenge targets: 100% achievement rate 	0	Individual (product) challenge targets: 100% achievement rate
environmental load	Reduction and management of environmentally hazardous substances used in products	Maintaining 100% product compliance with environmental laws and regulations	 Maintaining 100% product compliance with environmental laws and regulations 	0	Maintaining 100% product compliance with environmental laws and regulations
Coexistence with	External disclosure of information	Publication of Environmental and Social Report	Environmental Report: published February 2014	0	Publication of Environmental and Social Report
the local community, society, and nature Communication with local communities		Number of events held: 8	Number of events held: 14	0	Number of events held: 8

Committed to continually reducing environmental load based on the

Evaluation: \bigcirc : Achieved target; \times : Did not achieve target





JATCO **Environmental** Policy

Environmental Policy

- Realizing a society where automobiles and the environment coexist in harmony
- Technology...Development of transmissions with high energy-transfer efficiency
- ♦Pollution Prevention...Preventing environmental problems and strict compliance with laws and regulations
- ♦Effective Use of Resources...Minimizing the use of resources and energy
- Continuous Improvement...Improving the effectiveness of the Environmental Management System

Fulfilling the vision of a society where automobiles and the environment can coexist in harmony with eco-friendly products and equipment

JATCO technologies are hard at work in the fight to reduce the environmental impact of automobiles

Today, as debate takes place on the urgency of protecting our environment globally, a variety of initiatives are being implemented around the world in order to reduce the environment impact of human society.

One such initiative can be found in the environmental performance of automobiles, a mode of transportation that forms an integral part of our lives. Advancements in transmissions, and in particular continuously variable transmissions (CVT), both key to enhancing drivability and fuel efficiency, have garnered strong attention in this regard.

As a global leader in automotive transmissions and the only company offering a full line-up of CVTs, spanning from small to large vehicles, JATCO is helping to reduce the environmental impacts of automobiles on our planet by supplying transmissions with superior environmental performance to automakers throughout the world.

Being more considerate of the environment in our global business activities

JATCO is currently in the process of expanding its production sites globally in order to deliver a stable supply of transmission products to its automaker customers around the world. These production sites adopt the same environmental preservation measures that we use in Japan to help minimize their impact on the natural environment. They also proactively employ their own ideas when its comes to safeguarding the environment. JATCO Mexico has already obtained ISO14001 certification for its environmental management system and soon our other production sites will follow suit.

This is because we want to produce eco-friendly transmissions using eco-friendly means. In this sense, we are firmly committed to rolling out a production style at all of our sites around the world that mitigates impact on the environment.

JATCO's role in the future of the automobile and environment

As people and society's awareness toward environmental preservation grows, car buyers are now more determined than ever to purchase an automobile that is fuel efficient and considerate of the environment. That is, a green car that has less of an impact on the environment and offers excellent fuel economy. JATCO continues to tackle the many challenges associated with building the ideal vehicle, one which balances environmental performance with driving performance. JATCO has continuously carried out research on the environment and fuel economy, and the technology and experience honed over many years by JATCO as a transmission maker has already taken form in such products as the Jatco CVT7, the Jatco CVT8, and the Jatco CVT8 HYBRID. JATCO will continue to contribute to the future of the automotive society by developing revolutionary new technologies for electrically powered vehicles such as hybrid vehicles (HEV), electric vehicles (EV), and fuel cell vehicles (FCV). Our unwavering commitment to monozukuri as part of our vision to achieve a society where automobiles and the environment can coexist in harmony remains unhindered and steadfast.

Environmental Activities

Material Balance

We strive to understand the emissions of the various substances associated with our business activities

JATCO generates a variety of waste by-products in the course of conducting its business. To reach its goal of building a recycling-oriented society, JATCO is committed to the appropriate use of resources and the reduction of emissions.



Environmental Management System

Building a system to identify and manage environmental load

We are stationing site supervisors in each region to promote regional management. The Environmental Planning Subcommittee has been established and is considering the former's medium- to long-term environmental strategy.

JATCO Environmental Management

JATCO's headquarters and each of its domestic locations have obtained ISO14001 accreditation.

The staffing structure to promote the Environmental Management System (EMS) includes one Environment Supervising Manager and 13 Site Supervisors, and, based on the authority of the Environment Supervising Manager, is promoting the EMS in each production location and department.

In addition, for overall EMS promotion, the Executive Environmental Committee consisting of the Environment Supervising Manager and Site Supervisors carries out the overall review and evaluation. The committee also has the staff structure in place to make follow-ups regarding the EMS.

In this way, unifying the corporate direction and promoting cooperation by operating a shared company-wide EMS across multiple production locations and functions are the major features of the JATCO EMS. On the other hand, by establishing regional environmental committees in each production location, environmental activities that make the best use of the features of the region are also being carried out.

Among domestic group companies, JATCO Engineering has independently obtained ISO14001 accreditation.

Among our overseas facilities, JATCO Mexico and JATCO Guangzhou obtained ISO14001 certification in 2011 and 2013 respectively, while JATCO Thailand is currently working to develop an EMS in order to obtain ISO14001 certification in FY2015.

JATCO's environmental policy is 'realizing a society where automobiles and the environment coexist in harmony', and based on this environmental policy:

- Technology: Development of a transmission with high transmission efficiency
- Pollution Prevention: Prevention of environmental accidents. adherence to laws and regulations

- Effective Use of Resources: Promotion of energy conservation, reduction of waste

- Continuous Improvement: Increasing EMS effectiveness JATCO is proactively promoting environmental initiatives through environmental activities based on these four pillars.

Integration of Quality and Environmental Management

JATCO has integrated its quality and environmental management systems.



JATCO Voice

Changes to JATCO's management system

JATCO's management system combines systems for managing both the environment and quality, and is in the third year of operation. Although many may think that the management methods differ considerably between environment and quality, there are actually many points in common. JATCO has ISO14001 (environment) and ISO/TS16949 (guality) accreditations, and their requirements are similar in many ways, including process focus, effective use of resources and continuous improvement. This enables management to be carried out using the same system. Environmental policy is also simplified using four

pillars: technology, pollution prevention, effective use of resources and continuous improvement. As a company that is expanding globally, JATCO's standards have been globalized by making them easy to understand with the predominant use of flow charts. This enabled all our colleagues across the globe to approach their work with a unified perspec-

JATCO will continue to evolve and improve, so you can expect great things from us.



Sachio Kanazashi Production Administration Section Production Administration Department

The fundamental concept behind our environmental activities

JATCO has established environmental committees in each region, carrying out environmental activities that suit the region. JATCO interlinks two types of PDCA spiral, being the overall PDCA cycle (the main EMS spiral) and the PDCA cycle by region/department (function) (the sub EMS spiral), providing consistency in the direction of each initiative. By carrying out

Overview of JATCO's Environmental Activities



JATCO Environmental Planning Subcommittee

In 2008 JATCO established an Environmental Planning Subcommittee to review the company's mid-to long-term environmental strategy. Its role is different from the regional environmental management conducted by the EMS in that this subcommittee is tasked with considering such things as social conditions and top policies before it must review and promote the company's mid- to long-term strategy.

Within this subcommittee, there are eight smaller subcommittees, each one being used to expand environmental

Medium- to Long-Term Environmental Strategy / Promotion Diagram



continuous improvements to enable increasingly effective activities, JATCO aims to create and provide environmental value for stakeholders. We consider that this is the role JATCO should fulfil in order to work towards realizing a sustainable society.

management based on its functional hub. These represent each of JATCO's eight business units, including product development, manufacturing and procurement. From a high-level perspective, we aim to implement planning and management across JATCO's entire organization. Among these, the Environmental Planning Subcommittee focuses on the three most important issues, which are the prevention of global warming, environmental preservation, and the efficient use of our resources. We also support the planning and management of environmental activities at our overseas bases.

Product Initiatives

Ongoing development of products with less environmental load

JATCO is dedicated to making products with reduced environmental load by reducing fuel consumption further.

Aiming to improve CVT's environmental performance

The world's only manufacturer offering a full line-up of CVTs

The most crucial issue in recent years to control global environmental changes caused by CO2 emissions is improved automobile fuel economy. In order to tackle this problem, JATCO began early development on CVTs with advanced environmental performance. JATCO released a 2 liter class metal belt-drive CVT in 1997, ahead of the rest of the world, and through repeated improvements, went on to achieve a full line-up of CVTs that covers mini vehicles to 3.5-liter class vehicles. The standard line-up was then updated again in 2009 with the development of the Jatco CVT7, and in 2012 with the Jatco CVT8, CVTs with auxiliary gearboxes. Achieving ever lower fuel consumption JATCO contributes to reducing environmental impact as the CVT brand with the top share in the world. JATCO produced approximately 4 million units CVTs in FY2013, bringing the total number of vehicles in the market equipped with JATCO's CVTs to over 21 million units.



Jatco CVT7, aiming to further reduce fuel consumption

Through fresh, out-of-the-box thinking, JATCO developed its Jatco CVT7 with the world's highest gear ratio coverage. To endow this transmission with dramatic improvements in environmental performance, JATCO worked to produce an revolutionary new auxiliary gearbox structure that allows expanded gear ratio coverage, and friction-reducing technology that results in better fuel efficiency and a more pleasant drive.

< Features of the Jatco CVT7 >

Improves start-line and acceleration performance using the world's widest gear ratio coverage LOW Response at low-speed and starting Jatco Engine CVT7 Conventional CVT revolutio gear ratio coverage HIGH High speeds, low engine revolutions Vehicle speed Reduced the overall size and weight of the unit by making pulleys more



Improves fuel economy and transmission efficiency through reduced friction Pulley does not agitate the oil



Idling stop control

In recent years, there has been an increase in the number of vehicles equipped with an "idling stop" feature to reduce CO2 emissions by automatically turning off the engine when the car is stopped. JATCO has been an early adopter of this technology, providing customers with a comfortable driving experience that also achieves low fuel consumption through such measures as maintaining transmission oil pressure when stopped using an auxiliary pump to ensure restarting is smooth, and engaging the clutch on inclined roads to prevent the car from slipping backwards.

Jatco CVT 8 – balancing environmental performance with power

The Jatco CVT8 was developed to update the existing line-up to handle the wide range of engines in the volume zone of 2.0 to 3.5 liters. This CVT model offers the perfect blend of far superior environmental performance and power all in a compact design that retains the smooth and seamless shifting of a CVT. This performance is made possible by its best-in-class gear ratio and significant reduction in friction thanks to greater efficiency achieved throughout its design.

< Jatco CVT8 features >

JATCO

Voice

■ Increases gear ratio in 2.0- to 2.5-liter class engines to a world leading 7.0, providing powerful, responsive starts as well as improved fuel efficiency and less noise at highway speeds



Product planning that responds to customers' needs

In addition to compliance with the world's laws and regulations, we take a mid- to long-term look at government policy, economic trends, social conditions, and technological trends to plan the next generation of products. While cars are used in a variety of ways in domestic and international markets,

■ 40% reduction in friction compared to similar engine class CVT. the CVT8 provides enhanced transmission efficiency and improved fuel economy.



*Results of evaluation at US Comb (comparison with our conventional CVT of the same class)



Environmental Activities

Product Initiatives

Ongoing development of products with less environmental load

JATCO is dedicated to making products with reduced environmental load by reducing fuel consumption further.

Creating a specialized transmission to meet market needs

A hybrid transmission using our proprietary system

To meet the needs of the growing hybrid car market, JATCO has developed a hybrid transmission unit for FWD and RWD vehicles.

< Jatco CVT8 HYBRID (hybrid transmission for FWD vehicles) >

- Improves fuel economy in the city with the use of a proprietary 1-motor 2-clutch system
- The technology of the advanced Jatco CVT8 base unit helps improve fuel efficiency and reduce noise at highway speeds
- The combination of CVT and motor provides a quick response and direct feeling of acceleration
- Clutch and motor replace the torque converter, making the unit lighter and more compact, providing for easier installation



< Hybrid transmission for RWD vehicles >

- Improves fuel economy in the city with the use of a proprietary 1-motor 2-clutch system
- Advanced control of the clutch system made possible by our long-standing automatic transmission development experience improves transmission efficiency during motor use
- Clutch and motor replace the torque converter, making the unit lighter and more compact, providing for easier installation



Working pattern of transmission

Realizes the following operations by using a motor and two clutches for driving and regenerration.



Fuel efficiency improvement of the step AT

Multistepping and wider range of gear ratio

We are working to improve the fuel efficiency of step ATs, with their fixed step design, to add multistep and wide range. In the RWD 7-speed AT the gear ratio has been widened, so that the transmission is smooth and fuel-efficient at every stage, when starting, accelerating or cruising at high speed.

What is a CVT?

Pullev on the output side

Characteristics of a CVT

The CVT can take advantage of its stepless gear changing ability to choose the gear ratio that best suits the driving situation; thus, it is constantly matchingthe ideal gear ratio to run the automobile in the most fuel efficient way. Belt CVT mechanism





4-speed AT

Further measures to reduce CO₂ emissions

We will pursue further technical innovations in transmissions to reduce CO₂ emissions.

- Improvements to the belt CVT Improved transmission efficiency, wide-range conversion, lightweight Improvements to the step AT
- Multi-stepped AT, wide-range conversion, lightweight Control technology improvements Expansion of lock-up area, neutral idling control, idling stop control Measures for hybrid systems
- Optimized transmission for hybrid cars



CVTs and Engine Coordinated Control

CVTs can easily select the most suitable gear for the driving conditions, making it possible to adjust flexibly to differing driving styles, reducing fuel consumption.



Product Initiatives

Promoting the reduction of environmentally hazardous substances and the "3Rs" in our transmission units

JATCO is dedicated improving its recycling and reuse ratios by reducing the use of environmental load substances from the development stage.

Reduction and thorough management of environmentally hazardous substances

Management of chemical substances according to JATCO technical standards

We manage environmental load substances in transmissions according to our internal technical standard "JES M9001." JES M9001 governs the use of some 150 substance groups (2,700 substances) based on GADSL*1 a list of controlled chemical substances common to the auto industry in Japan, the U.S. and Europe, and the Chemical Substance Control Law*2 together with legislations from various countries. JATCO carries out appropriate reviews more than once a year to stay ahead of global environmental laws and promote the reduced use of environmentally hazardous substances.

JATCO is also working to develop a GHS*4 to protect people's health and the environment through labeling for safe handling and the preparation of SDS*3.

Activities to raise environmental awareness internally and externally

The management and reduction of environmentally hazardous substances is a key supply chain-related measure involving suppliers. In order to further raise environmental awareness, JATCO is stressing the importance of green purchasing and initiatives to reduce environmental hazards through such channels as the JATCO Quality Forum, which involves both internal and external stakeholders.

Efforts to reduce the use of environmentally hazardous substances

In pursuing such reductions, it is important that we "do not use" controlled substances under JES M9001 in the design and manufacturing divisions, "do not allow" these in the procurement and inspection divisions, and "do not supply" these in the production and shipping divisions.







Status of efforts to reduce the use of environmentally hazardous substance

Regulated Substances	Situation
Lead	No longer in use (excluding exemptions)
-Lead solder (platforms)	Currently reducing usage
Hexavalent chrome	No longer in use
Mercury	No longer in use
Cadmium	No longer in use
Asbestos	No longer in use
Approved substances	Currently reducing usage

JATCO Voice

Moving forward with stronger supplier cooperation

Regulations on chemical substances are becoming tougher every year, such as with the EU-ELV directive, REACH regulations, and CSR*6.

The latest information on laws and regulations is shared with related departments, and the IMDS system is used to survey and monitor the inclusion of environmentally hazardous substances to bring about

their reduction.

The cooperation of suppliers is essential for this activity. Since JATCO cannot handle GHS compliance, which will become a requirement, on its own, activities will move forward with even closer cooperation with suppliers



Tomohiko Saduka R&D Manac nent Depa

Glossary

ri GADSL: Global Automotive Declarable Substance List 🔧 Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc ⁴³ SDS: Safety Data Sheet *4 GHS: Globally Harmonized System of Classification and Labelling of Chemicals

¹⁵ IMDS: International Material Data System ^{*6} CSR: Customer Specific Requirements, items requested by individual customers

Promotion of reuse of resources that had been discarded

The "3Rs" of our products

The "3Rs" represent three key words necessary to create a recycling-oriented society. Reduce, Reuse, and Recycle. JATCO's approach to 3R activities is in the diagram below.

"3Rs" of production



Remanufacturing system

Since 1989, Remanufacturing Operations ("Reman") has been collecting CVT/AT units from the market for disassembly, repair and quality assurance to supply to the market once again. Through this business, we help to preserve the global environment by reusing necessary resources.

Remanufacturing Operations bases are located in Japan and Mexico; furthermore, we have negotiated a technical assistance agreement with a local repair company in China to repair products collected from the market. We will continue to improve the recycling rate for products that we have collected for environmental preservation.

Remanufacturing Operations Process



Production Process

Aiming to be the "World's No.1 in Monozukuri", JATCO is advancing with upgrades of technologies and facilities

JATCO aims to balance the need for reductions in environmental load during production with the need for efficiency, as well as introduce energy and resource saving equipment. We are also taking measures to properly manage chemical substances and reduce waste.

Aiming to be the World's No. 1 in Monozukuri

JEPS (JATCO Excellent Production System)

JATCO strives to become the top Monozukuri company for quality, cost and delivery. Our JEPS (JATCO Excellent Production System) is a no-waste system where each process of "purchasing materials, machining, assembly, and shipment" flows smoothly and promptly in a streamlined manner.



Target of JEPS

The target of JEPS is to achieve the following two "unlimited" features within the entire supply chain.

- (1) Unlimited synchronization with our customers -QCD
- Q: to synchronize QUALITY that emphasizes the value desired by our customers;
- C: to synchronize COSTS by offering reasonably price products;
- D: to synchronize the time of DELIVERY to our customers, reducing production lead time.

JATCO are in pursuit of these three synchronizations.

(2) Visualization of unlimited challenge and innovation

To recognize the gap between the ideal state of Monozukuri and the current situation, visualize the hidden weak points and actively make improvements. By repeating these improvements and innovations, we can raise the level of efficiency and process efficacy of production.

JEPS Innovation

As JATCO continues with innovations to its Monozukuri processes in pursuit of achieving the two "unlimiteds", the Environmental Management System and the Quality Management System were integrated to simplify shared management and application specific systems while keeping the improvement of management efficiency and easing of work flow in mind. On-site verification meetings were also commenced in four global locations from FY2013 to further accelerate innovation.

Based on the rebuilt system, JATCO will deploy its Monozukuri in the global supply chain, including for overseas facilities, using JEPS as the standard. At the same time, JATCO aims tooptimize the flow of goods and information by increasing theeffectiveness and efficiency of manufacturing processes so asto promote savings in energy and resources and in turn contribute to automotive culture and society.



Striving to improve processes for energy efficiency and resource conservation

Environment-responsive production technology

Integrated production from raw materials to completed unit is performed at JATCO where the Production Technology Division considers the limits of the Earth's resources at each stage of new product and technology developments.

Top priorities include reduced CO2 emissions through new technology, reduced environmental load (management of hazardous materials), and utilization of idle facilities to effectively use (recycle) our resources. We are developing highly efficient, load-reducing methods and innovative methods to reduce production processes as well as introducing and converting to energy and resource-saving equipment.

CO₂ reduction through the usage of compact, lightweight parts

In FY 2013 CO₂ emissions 68 tons

JATCO has employed lightweight casing parts in the next-generation CVT announced in FY 2013. During the development of this new CVT, the R&D Division and Production Technology Division collaborated intensively on 'production design' from the very beginning. By reducing the general thickness on using the optimum configuration and clearance of limits during production, a weight saving of 5% was achieved compared with previous CVTs in the same class, CO₂ emissions generated during parts production were thus substantially reduced, and an emissions reduction of 68 tons per year was made possible.









CO₂ reduction to the machining/heat treatment line through production design

In FY 2013 CO2 emissions

3,260 tons

The Production Technology Division was involved in the product design of Jatco CVT 7 from its early product development stage. This new CVT went into production in 2009, and production is now being largely expanded due to its popularity. From the production design phase it became possible to drastically reduce the number of machines and to shorten the cycle time required in the pulley machining line, by reducing machining points to minimum. The cycle time was then further reduced when the necessary conditions for the heat treatment line were refined. As a result, we have succeeded in reducing CO₂ emmissions by approximately 3,260 tons per year.

Reduction in CO₂ emissions by production design



Reduced CO₂ emissions using residual heat from the forging process

In FY 2013 CO ₂ emissions	100 tons
In the past, we have cooled the work after hot f	orging and
reheated it to process rough materials. However, v	ve are now
changing to a heat treatment method (self-annealing	g) that uses
the heat remaining from the forging process. By do	ing so, it is
now possible to use one line instead of two for heat	t treatment.
This has eliminated physical distribution betweer	h lines and

reduced annual CO₂ emissions by approximately 100 tons per vear

Production Process

We are making improvements to our production technology in order to create a production line with lower environmental load

Not only are we making improvements to the products themselves, we are also streamlining the production process, expanding our energy efficiency and resource conservation activities throughout the entire organization.

We are working to reduce overall environmental loads throughout the production process

CO₂ reduction by reducing the final tester and valve tester

In FY 2013 CO₂ emissions reduced by approx. 130 tons

The involvement of the Production Technology Division in the 'production design' process from the very beginning of product design is part of the proactive way that we enable improvements to both product performance and productivity. As a result, we can now drill down product performance to the accuracy of individual parts, and reduce product performance tests by front-loading (conducting in-process) the assembly accuracy testing, shortening the final tester/control valve tester cycle time. The number of testers required has been reduced, reducing CO₂ emissions by 130 tons annually.

Environmental improvements by converting from hydraulic to servo press fitting

Hydraulic press fitting is the conventional press fitting method used during the assembly process. Hydraulic press fitting machinery requires a pump to maintain oil pressure at all times, consuming a lot of electricity, creating noise and producing a lot of heat even when not being used. By converting to electric servo motors, which by not having a pump running constantly consume less power, and create less heat and noise, we are contributing to a better environment.

Shortening the lead time of our next generation CVT units and reducing CO₂ emissions

We are making changes to the processes and methods used to manufacture our next generation CVT units in order to significantly reduce lead time, which in turn will also help us further curb our CO₂ emissions.

We are aiming to achieve a higher target through bold proposals for all parts the Production Technology Division handles and by collaborating with the R&D and Production divisions.

Utilizing direct mold carving to reduce environmental load

In FY 2013 CO₂ emissions reduced by approx. 50 tons

The molds used by JATCO for die casting and forging involve complex shapes, so electro-discharge machining (EDM) has been the conventional manufacturing method. This method consumes a lot of power, and the graphite used as electrode material and the sludge generated during EDM become industrial waste. Therefore we are currently promoting the process of direct mold carving directly at the Machining Center. At the Machining Center, reductions in machining time through improvements in machining programs and cutting conditions has resulted in reductions of CO₂ emissions of 50 tons annually, and has significantly reduced the amount of industrial waste.



Die-cast molds fabricated using the direct mold carving process

Pursuing groundbreaking technological development

The Production Engineering Division is constantly searching for new technological breakthroughs as part of its plans to reduce greenhouse gases emissions 50% by the year 2050. These measures include purchasing molten metal for die casting, eliminating the shaving process for gear parts, developing nextgeneration vacuum carburizing furnaces, and reducing CVT unit weight through thin-wall die-casting and new materials.

The scope of technological development is not limited to production lines but also includes activities to develop elemental technologies for bringing about innovation in parts and units. The division aims to successfully develop the next version of units as well as highly efficient next-generation units based on these activities. Product development from the Production Division can also contribute to reduction in environmental loads.



Energy efficiency activities undertaken at facilities

CO₂ reduction targets

In FY 2013 CO ₂ emissions were approx.	244,906 tons	
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JATCO carries out an prior evaluation when installing new equipment. For equipment in operation, we are taking steps to switch to energy- and resource-saving equipment that has low environmental impact. We will continue to actively pursue technological innovation to reduce the environmental impact at all our facilities and plants. JATCO's domestic business activities in FY 2013 resulted in CO₂ emissions of approximately 244,906 tons. The CO₂ consumption rate^{*1} was approximately 46 tons / 100 million yen. Using FY 2005 levels as a standard, this is an improvement of 29.8%. Our aim for FY 2020 is to achieve 46.2 tons of CO₂ / 100 million yen.



Energy-saving activities at all sites

In FY 2013 CO₂ emissions were reduced by approx. 14,168 tons

JATCO sets CO₂ emissions reduction targets for each site, and not only those in charge of environmental conservation but a large number of employees come up with and implement energy-saving ideas. The ideas that were actually put into practice and proven to be significantly effective are featured on the internal environmental website for sharing as well as for boosting employee motivation. The energy saving ideas implemented in FY 2013 resulted in CO2 emission reduction of approximately 14,168 tons.

IATCO	All employees working to fulfill energy-	reduction go
Voice	My name is Himata and I was assigned here in July. Before that I was involved in machinery design, assembly, maintenance and modification. Before being assigned here, I worked with machin- ery used in cosmetics manufacturing. The company had a high level of awareness regarding the environment. There was a unique	program there could collect pr then exchange While I do not management of blessed with a s with the member
Glo	*1 CO2 consumption rate: CO2 emissions per *2 NAS battery: a liquid sodium and liquid sulfur sto	sales (100 million y rage battery using a s

(Electricity consumption, heat generation, and noise were controlled by switching hydraulic pumps used for product press-in to servo motors.)

JATCO /oice 124 tons

CO₂ emission reductions through lighting improvements at various factories

In FY 2013 CO₂ emissions were reduced by approx.

CO₂ emissions reductions made through lighting improvements are one of JATCO's core energy saving measures that have been implemented systematically. Lighting is a typical "little things make a big difference"-type energy and accounts for a rather significant share of energy consumption at the company as a whole including factories. We have therefore made improvements to ceiling lighting in our factories. We switched to energy efficient lighting, carried out light thinning and turned off certain lights, while ensuring a bright enough environment. In FY 2013, these efforts resulted in savings of 332,000 kWh in power consumption, while CO₂ emissions were reduced by approximately 124 tons.

Collaboration with companies in other business fields

As a new global environmental conservation approach for JATCO, we have been actively promoting collaboration with companies from different industries. We have been working with The Tokyo Electric Power Company, Incorporated since FY 2005 to install NAS battery equipment*2. The NAS is charged at night, when demand for electricity is at its lowest, and the power is used during the day, when demand for electricity is at its peak. This helps the power plants control output and enables an efficient use of electricity.

In FY 2007, we collaborated with CHUBU Electric Power Co., Inc. to observe the combustion conditions of an aluminum-melting furnace in real time and implemented a system to sustain the most suitable state of combustion. Presently, we are promoting the same activity for the entire company.

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in which individuals and organizations oints through ecological activities and the points for goods.

t have any experience in environmental or ISO planning and proposal, I am great environment, and I hope to work ers of my group to fulfill our goals.



Production Process

We are making improvements to our production technology in order to create a production line with lower environmental load

Not only are we making improvements to the products themselves, we are also streamlining the production process, expanding our energy efficiency and resource conservation activities throughout the entire organization.

Conducting various environmental activities

Installation of solar power generation system and rooftop greening

In FY 2013 CO₂ emissions reduced by approx. 5.0 tons

On the roof of the head office building we have installed a 10kW solar power generation system that takes advantage of the sun's renewable energy. This energy is used to power the building's air conditioning. The introduction of this system has cut annual CO₂ emissions by approximately five tons per year. In addition, we used the inherent nature of plants to lower the temperature to implement a green roof that has helped to lower the building's temperature, reducing the power requirements of the air conditioning in summer.



Rooftop solar panel array

Expanding the J-ESCO team overseas

JATCO Plant Tec, which began at JGZ, has established an energy conservation equipment auditing team (the J-ESCO team) in cooperation with the JATCO Engineering department. J-ESCO is an abbreviation of JATCO Energy Service Company. Activities commenced this year with the goal to work towards the effective use of energy by carrying out energy conservation equipment auditing at overseas sites as well. A decision was made to start up a J-ESCO team at JGZ first, and Mr. Huang and Mr. Ma (an interpreter) were dispatched to Japan to study auditing skills. Over the long two-month period, both worked very diligently, and were able to achieve a high test score on the

their understanding. One month later, they carried out an audit of equipment on-site at JGZ, where the workers were greatly encouraged to have new reliable partners.



Conservation activities in the office

Implementation of Cool Biz and Warm Biz

As part of our energy conservation efforts, we raise temperatures in our offices between June and September, and encourage our employees to wear Cool Biz friendly light clothing. From December to March we participate in Warm Biz, encouraging our employees to wear more clothes if they feel cold, and allowing us to lower the set air-conditioning temperature.

Visualization of power consumption to promote voluntary energy-saving activities

JATCO has begun announcing the previous day's power consumption within the company in a bid to promote energy-saving activities by visualizing our actual power use. This allows all employees to easily check the power consumption in the various regions and serves as a guide for energy saving. With this initiative, we aim to promote voluntary energy-saving activities by individual employees.

Employee awareness activity through the environmental website

We launched a dedicated environmental intranet site to raise environmental awareness among employees. This website is updated with internal and external event information, as well as content such as JATCO eco test and Ecodrive test that help employees learn more about environmental issues.

To raise awareness of energy efficiency, we posted on the website a case study conducted in the company titled "Energy Efficiency Case Study Presentation 2013". The knowledge gained from this is being spread throughout the whole company.



Ever-expanding scope of activities to further raise environmental awareness

JATCO Since September, I have working as a temporary Voice transfer from Aichi Machine industry. My job has remained the same as it was prior to my transfer, in the environmental division. However, the significantly larger scale of JATCO took me by surprise.

For example, even the simple act of walking around the vast grounds of the plant once feels as if it has an actual effect on my diet. The offices are also scattered across various locations, and it is not easy to move from place to place.

Regardless of the fact that it is such a large company the plant's environment has been extremely well maintained in each area. Environmental activities such as energy conservation and resource conservation are also progressing steadily. I find this truly amazing. I think that a large part of this can be attributed to the dedication and efforts of each and every person working here.

As a member of the environmental division, I aim to contribute to further raising environmental awareness, which is where one of JATCO's strengths lies.



Kiyohiko Hasegawa on Adr Production Administration Departmen

Setting easily practiced rules for separating waste

We are implementing internal activities to reduce waste by assessing whether it can be reduced, reused or used in other ways and devising ways to do this. There are some waste materials that we have no option but to dispose of. Such waste is disposed of in accordance with the established separation criteria so that it can be recycled.

Waste reduction activities

"Zero emission" activities

In FY 2013 achieved direct landfill waste was	zero
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By incorporating "zero emission of waste" into the waste reduction promotion management of the Environmental Management System (ISO 14001), we are promoting activities to achieve this goal. As a result of these efforts, we were able to cut the amount of landfill-bound waste to zero at our business sites in Japan.





Achieved 100% recycling rate



As part of its "zero emission" initiatives, JATCO is driving forward with efforts to avoid the incineration or landfill of waste and instead take measures such as thermal recycling and material recycling. Also, to effectively collect waste for use as resources, we have strict measures for separating our waste. Through these activities, we achieved a recycling rate of 100% at our business sites in Japan.

All employees participate in waste reduction

In FY 2013 total waste was reduced by 14% (vs. FY 2005)

To reduce CO₂ emissions at each of our business sites, we are taking various energy-saving measures. Each business site sets its own targets and each worksite posts its own ideas that have been implemented to raise motivation and share methods for energy preservation.

Glossary

Hazardous air pollutants: dichlor omethane, trichloroethylene, tetrachloroethylene *2 PRTR: The Pollutant Release and Transfer Register, a law to promote improved management of emissions of specific chemical substances into the environment

Chemical substance management activities from production processes

Managing Volatile Organic Compounds

In FY 2013 VOC emissions were reduced by 99% (vs. FY 2000)

As a volatile organic compound (VOC) measure, activities based on the action plan of Japan Auto Parts Industries Association (JAPIA), aiming for VOC 30% reduction in emissions by the year 2010 (compared to FY 2000) were conducted. As a result, we were able to achieve a 98% reduction by FY 2006 and a 99% reduction in FY 2010.

Measures against soil and groundwater contamination

As a measure to protect against soil and groundwater pollution, the use of chlorinated organic solvents was abolished. As these solvents had been used in the past, JATCO is currently monitoring its records and the environment for any signs of impact.

Eliminated the use of 3 hazardous air polluting substances

In FY 2013 3 hazardous air polluting

100% (vs. FY 2000)

In FY 2006 JATCO achieved a 100% elimination of the emissions of 3 hazardous air polluting substances*1 and maintained that success in FY 2013.

PRTR substances management

The amount of chemical substance emissions and transfers subject to PRTR*2 handled at JATCO's production sites in Japan are shown in the graph below. In FY 2013, N,Ndicyclohexylamine, 1,2,4-Trimethylbenzene, and n-hexane were added to list of controlled chemical substances based on revisions made to Chemical Substance Control Law.

Chemical	Amount	Emissio	ns volume
ance nanuling and		s volumes ((112013)

DDTD substance handling and amissions values (DV 0010)

	Chamical	Amount	LIIIISSIU			Amount	
Classification	substance	handled	atmosphere	water	soil	of waste transfers	
Specified Class I	dioxin (mg-TEQ/year)	_	67.7	0	0	0.001	
Chemical Substances	benzene	943	1	0	0	0	
	ethylbenzene	3,031	7	0	0	0	
	xylene	142,508	51	0	0	0	
Class I Designated	1,2,4- trimethylbenzene	104,708	0.3	0	0	0	
Chemical Substances	1,3,5- trimethylbenzene	1,978	22	0	0	0	
	n-hexane	1,779	5	0	0	0	
	toluene	43,569	29	0	0	0	

Unit: kg / year (dioxins mg-TEQ / year)

Distribution Efforts

Reducing the environmental loads associated with transportation

JATCO is moving forward with the rationalization of its logistics system as a means to reducing its impact on the environment from the transport of transmission components and units.

Switching to improved transportation systems

CO₂ reduction in transport

In FY 2013 CO2 emissions were reduced by 29% (vs. FY 2009)

JATCO has established a green logistics target to achieve a greater than 1% average annual reduction in its CO₂ emissions rate over the past five years. This target covers logistics in Japan only. There was a 12% improvement over the previous year in FY2013. The goal was achieved by realizing an average 7.9% reduction over five years.

*CO₂ emissions (t-CO₂) ÷ Shipment Volume (1000t.km)



Modal shift

To reduce CO₂ emissions that accompany distribution processes, we are improving our transport methods and have implemented a modal shift since 1994 with the help of our domestic customers.

Specifically, the transport of products to our customers in the Kyushu area is now done by ferry instead of truck, thus reducing CO₂ emissions by 75%.

In FY 2005, we switched from truck to train for the distribution of JATCO's supply parts from the Hiroshima area. Furthermore, in early 2006, we switched to using trains for the Okayama area and further expanded our modal shift system. The supply parts that were delivered from the Shizuoka production base by truck to the Hiroshima (780 km) and Okayama (680 km) areas were subject to this change. As a result, the daily shipment volume of seven 10 ton trucks was reduced to 16 containers, cutting CO_2 by 83.3\%* annually. We will continue to promote this modal shift and reduce the number of trucks required to achieve load efficiency.

*The comparison between truck transport of 3.276 tons-CO2 and JR train transportation of 546 tons-CO2 (research conducted by the Japan Freight Railway Company)

Promoting the improvement of shipping and packaging materials

Improved packaging for purchased parts

The delivered packaging for purchased parts is currently being improved as a loading efficiency measure to reduce the number of trucks used.



Examples so far have not only improved cargo transport efficiency by eliminating wasted space, they have also improved safety in handling cargo.



Activities to clean containers are also being promoted

Reuse and recycling of resin containers

Traditionally, resin containers and protective resin cushioning materials are used to protect products from damage during transportation and storage. When these have become unusable due to deterioration or age, in the past we had discarded them as industrial waste. However, since 2004 we have been reusing the materials in other products, and have received assistance from the resin manufacturer to recycle the base material and reduce waste.

Trends in reuse and recycling of resin containers



Environmental Activities

Environmental Communication

Making the environment the origin of our communication

JATCO uses various communication channels to help people understand its approach to the environment.

JATCO actively shares its commitment to the environment

Publication of Environmental and Social Reports

The company has been publishing its Environmental Report every year since 2005 in an effort to help people understand its broad environmental commitment.

From 2009 this report was renamed the Environmental and Social Report, of which the social pages covering our social activities, were given more focus.

Communication activities centred on interaction

Co-sponsor of the Shizuoka Environmental Caravan

JATCO is an annual co-sponsor of the Shizuoka Environmental Caravan. These activities involve mascot performances and the handout of environmental picture books at mainly kindergartens and day cares in Shizuoka Prefecture in order to foster greater awareness toward the environment in children. Our involvement in this fun and enlightening program is part of our commitment to help children think more about the natural environment.



Performance by the Shizuoka Environmental Caravan

Ayu (sweetfish) baby fish released into rivers (Fuji area)

Every year since 1999, Jatco has been inviting local kindergartenstudents to help release baby Ayu fish into the Tajuku Riveras a way to restock the fish population, and the date for this year was June 21, 2013. This year's event, the 15th, took place at the Sakaemachi Children's playground. A large number of kindergarten children participated in the eventand helped to release around 350 fish. The baby fish were purchased with the proceeds from an in-house aluminum can recycling program.



Children releasing baby fish into the river

Disclosure in the website

The various initiatives contained in the Environmental and Social Report can be downloaded at the following JATCO website

http://www.jatco.co.jp/ENGLISH/society/reports.html

Exhibit at the 43rd Tokyo Motor Show

JATCO exhibited at the 43rd Tokyo Motor Show held at the Tokyo International Exhibition Center from November 22 through December 1, 2013. In addition to displaying the Jatco CVT8 HYBRID transmission for hybrid front wheel drive vehicles, the Jatco CVT7 with auxiliary gearbox for mini and compact front wheel drive vehicles, and the Jatco CVT8 for mid- to large-sized front wheel drive vehicles, the exhibit also displayed a future CVT concept model and initiatives to reduce the environmental impact of JATCO's transmissions. The booth was very popular with the show's visitors.



Our booth at the 43rd Tokyo Motor Show

Distribution of plants (Kambara area)

At JATCO's Kambara area site, JATCO has been participating in initiatives run by the local government to help clean up Koike River, as well as giving away potted plants to local children, since FY 2004. These activities were performed on July 7, 2013 with many employees participating as volunteers. The funds used to purchase the plants also came from the sale of recycled aluminum cans collected in-house.



Distribution of plants

Global **Features**

Environmental Conservation Activities Overseas

JATCO's sites around the world are each joining in initiatives to reduce our environmental load.

Mexico

At JATCO Mexico, employees are highly motivated to address global environmental protection issues as a key social responsibility of the company.

JATCO Mexico's environmental management system

Since its establishment in April 2003, JATCO Mexico has been engaged in a variety of environmental activities, including establishing environmental policies, conserving energy from the power supply side, and improving the company's recycling rate through waste sorting. In particular, starting in 2009 the company worked to construct an environmental management system, which underwent a review in March 2010 and obtained ISO14001 certification in May 2011. From this point forward, JATCO Mexico will operate this system as it strives for continuous improvement and works to achieve "a society where the environment and automobiles coexist in harmony".

The company has set up three committees to operate

its environmental management system: the Environmental Committee, the Environmental Legal Requirements Subcommittee, and the Energy Conservation Subcommittee.

The Environmental

Committee is composed of

CERTIFICATE anter anter

ISO14001 certification

representatives from each department and is headed by the company President and Vice-President. The Committee comprehensively debates, assesses, and tracks activities related to the environment. The Environmental Legal Requirements Subcommittee is comprised of managers in charge of the environment as well as members drawn from production, occupational safety and health, finance, and other departments. The Subcommittee determines, assesses, and applies legal and other requirements pertaining to the environment. Finally, the Energy Conservation Subcommittee deliberates and promotes the efficient management of electrical power, water, gas, and other power sources at each shop.



Key members behind construction of the environmental management system

Continuous improvement initiatives at JATCO Mexico

JATCO Mexico establishes environmental objectives every fiscal year as the company seeks to reduce its environmental load. The company also subjects its environmental management system to continuous improvements, conducting an annual review and setting objectives for the next fiscal year.

Targets Results		% Improvement	Judge	
100%	100% (398/398)	_	0	
147 Kwt	140 Kwt	Reduce 4.76%	0	
0.0710 ton	0.0687 ton	Reduce 3.23%	0	
0.255 m³	0.248 m ³	Reduce 2.74%	0	
87.95% (FY2013)	90.12%	Increase 2.17%	0	
	100% 147 Kwt 0.0710 ton 0.255 m³ 87.95% (FY2013)	100% 100% (398/398) 147 Kwt 140 Kwt 0.0710 ton 0.0687 ton 0.255 m³ 0.248 m³ 87.95% (FY2013) 90.12%	100% 100% (398/398) — 147 Kwt 140 Kwt Reduce 4.76% 0.0710 ton 0.0687 ton Reduce 3.23% 0.255 m³ 0.248 m³ Reduce 2.74% 87.95% (FY2013) 90.12% Increase 2.17%	

* Units produced: Generated per unit of CVT produced

Evaluation/O:Achieved target: X:Did not achieve target

China

JGZ's environmental management system

JGZ began building its environmental management system from 2013, and acquired the ISO14001 accreditation in March 2014.

In order to realize a society where automobiles and the environment coexist in harmony, JGZ has established an environment committee and ISO office for the operation of its environmental management system. The environment committee is composed of a general manager, respective assistant general managers, and representatives from each department. It manages, assesses and follows up on environmental activities comprehensively.

An engineering department has been set up in the ISO office to carry out assessments on compliance with environmental regulations as well as other everyday tasks.

JGZ's energy conservation activities

In order to mitigate environmental pollution, JGZ has put in place energy conservation activities starting in 2014. Its goal is to reduce energy consumption by 3% in comparison to the previous year.



Thailand

JATCO Thailand, where production began in 2013, aims to lessen its environmental impact through measures under the banner JATCO Thailand Green Action, as follows.

- 1. Purchase molten metal instead of aluminum ingots
- 2. Introduce vacuum carburizing heat treatment equipment
- 3. Treat plant wastewater
- 4. Recycle resources through separation and collection
- 5. Maximize greenery on plant grounds

Purchasing system for molten aluminum ingots







Environmental policy

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ISO14001 certification

lt	20	ludeo				
items	Targets	Results	Juage			
emissions generated from sales activities	↓ 3,100T	1111.9T	0			
aste reduction volume	↓ 31T	30.21T	0			
data is consolidated up until August						

In these ways, JATCO (Thailand) Co., Ltd. has put in place environmentally friendly improvement measures together with local companies.



ot for molten aluminum

In FY2013, JATCO (Thailand) Co., Ltd. used 1,135 tons of molten aluminum and emitted 2,825 tons of CO2.



Corporate Vice President Takeshi Kitajo



JATCO Recognizes the Importance of its People in Continuing to Provide Value-Added Transmission Units that Meet the Needs of Global Markets

The growth of each and every employee produces a relationship of trust

As demands today call for a higher level of environmental performance from automobiles, JATCO's transmission units are required in many markets around the world, including developed countries and emerging countries alike. In order to continually meet the expectations of these markets, it will be critical to provide superior transmission units at a lower cost and in a speedier manner. To that end, JATCO must continue to tackle even greater challenges.

JATCO values its employees so much that it refers to them as "human assets." We also value the diversity of each and every individual that is part of the JATCO family, and we strategically promote building positive workplace environments so that we can utilize the strengths of every employee to the maximum extent possible in striving to achieve the shared goal of sustainable growth. We believe that the constant evolution and spirit to take on challenges exhibited by our employees will provide the impetus for JATCO to achieve sustainable growth and by extension foster relationships of trust with its stakeholders.

Building relationships with the local community first begins by making employees proud of the company

In order to build relationships of trust with our stakeholders, it will also be equally important to develop positive relationships with the local community as a good corporate citizen. For JATCO to be a company that is well regarded by the local community and local residents, however, first we need to be a company that our employees are proud of. Employees that have pride in their company and that are active as good corporate citizens with positive character in the local community will help foster a relationship of trust with society, I believe. JATCO actively supports the social contribution activities of each and every one of its employees by providing facilities for these activities and giving plant tours and sponsoring hands-on events, in essence undertaking uniquely JATCO social contribution activities that leverage the resources cultivated from our business activities. Going forward, we wish to contribute to the sustainable development of society in order to pass on a rich and diverse world to future generations.

Keys to making further progress

Collaboration with our suppliers, which provide us with components, as well as our automaker customers is absolutely essential to our business activities. The Great East Japan Earthquake that struck Japan on March 11, 2011 brought about significant damages to the plants of JATCO's supplier and customer companies. JATCO strived to provide information on production and to ascertain the damages of each of its business locations as well as to provide assistance to restore the operations of damaged companies. In the earthquake that struck Eastern Shizuoka Prefecture later in March 2011, this time JATCO's facilities suffered heavy damages and its customer as well as supplier companies came to the rescue to provide significant amounts of assistance to restore operations at our affected plants. As a member of the supply chain, today I now feel a renewed sense of importance in inter-company collaboration.

During this disaster, we implemented the response plan (BCP) formulated to allow operations to continue smoothly in the case of a major disaster, and our employees came together as one to take initiatives to enable prompt product supply. The bond of solidarity and experiences in overcoming these crises will without a doubt act as an important foothold for our future progress. Going forward, together with its stakeholders JATCO will continue to promote the growth of its people in order to provide value to its customers, automotive culture and society.

Responding to Emergencies

Planning for accidents and disasters to create thorough readiness

Preparing for emergencies

JATCO has prepared countermeasures against major impacts on production and supply caused by disasters such as earthquakes, as well as epidemics, accidents, and other unforeseen troubles.

Initiatives toward BCM*

Dealing with major earthquakes

As one component of BCM, JATCO conducts disaster prevention activities aimed at first-response rescue, secondary disaster prevention, and speedy and effective recovery, all directed toward major (seismic intensity 6 or higher) earthquakes feared to strike sometime in the near future.

As a first-response measure, in March 2010 we completed preparations for an emergency earthquake notification system. We further enabled a system in workplaces to confirm employees' safety after an incident, and worked to shorten the time required to complete confirmations. Moreover, the disaster training we conduct every year incorporates the activities of our in-house firefighting team and involves participation by all employees.

As one recovery measure, from FY 2008 we have conducted BCM training for all relevant divisions. In this training, each division coordinates among themselves to find solutions to anticipated problems facing business recovery, based on damage assumptions from an earthquake. This includes

dealing with automobile manufacturers, suppliers, the community, and the media. Through repetition of such training, we aim to ensure a rapid response. To roll out our BCM more smoothly, in 2011 we expanded our BCM room, further strengthening our ability to respond to business continuity risks including emergencies. In addition, experience gained from this BCM development process is also utilized in the BCM development process of our overseas production bases including Mexico, China and Thailand. The JATCO Group will continue to deploy BCM across all of its operations globally.



BCM training implemented in the BCM room in October 2013

BCM Promotion Organization



lossary

*BCM: An abbreviation for *Business Continuity Management," which refers to creating a business continuity plan (BCP) and conducting training exercises under this plan in preparation for addressing a situation where the company can no longer continue to operate due to a large-scale natural disaster or pandemic.

Safeguarding our employees and equipment

Earthquake countermeasures for buildings and equipment

We have instituted a wide range of earthquake countermeasures at our primary production sites in Japan to prevent damage or injury to employees, equipment and buildings as well as ensure plant functions can be quickly restored. These measures include seismic retrofitting of our buildings, securing production equipment in place, and making sure that nothing can fall from the ceiling or cranes. As a member of the supply chain, we are also constantly thinking up new measures so that any impacts on our customers' production are kept to a minimum.



Newly installed brace

Earthquake countermeasures at our overseas sites

To prepare for unexpected earthquakes and other major disasters, BCM activities similar to those undertaken in domestic bases are expected to be deployed into JATCO's ever-expanding overseas bases. In addition, JATCO Thailand, which began its operation in July 2013, have taken on the lessons from the serious flooding in 2011, and have increased the banking (the foundation of the buildings) height by 50 cm in order to be more robust against tsunami and water damage.

Cooperating with local safety enhancements

Assisting with the evacuation of local community members

We have made plans to provide local community members with a place of refuge at our sites if they have no other evacuation site to go to following a large-scale natural disaster. As a member of the local community, we are always committed to helping those in need.

Ensuring the safety of our employees

JATCO has developed detailed procedures on evacuation sites and evacuation methods in order to ensure the safety of its employees in the event of a large earthquake.

We also regularly hold training drills based on a wide range of scenarios, including disasters striking during the daytime or nighttime, to make these procedures known to all employees. In addition, we maintain stockpiles of supplies at our sites, such as water, food, helmets and blankets, to prepare for an emergency event where employees may not be able return home on the same day.



Disaster relief supplies stockpiled at one of our sites in Yokohama.



The increased foundation height of the construction site.

Activities to promote BCP (Business Continuity Planning)

From FY 2008, we have undertaken efforts to promote the spread of BCP through training sessions aimed at local small and medium enterprises in Fuji City. JATCO supports the program by providing instructors.

Working with Suppliers

Aiming for a partnership of mutual growth

Building upon a foundation of trust with our suppliers, we are working to maintain and strengthen cooperative relationships based on equal footing and aimed at mutual growth.

JATCO's commitment to maintaining and strengthening its cooperative relationships with suppliers as well as contributing to the development of society

Based upon our relationship of trust with our suppliers, JATCO is working toward our shared growth and the achievement of a society where automobiles and the environment coexist in harmony.

Cooperation under fair, even, and transparent standards is vital to the achievement of those goals. That is why we implement and follow clear rules (as exemplified by Green Purchasing) for supplier selection and commendation of excellent suppliers.

In the future, as we expand our procurement from the global marketplace, JATCO will undertake the sharing of CSR (Corporate Social Responsibility) and continue contributing to the sustainable development of society.

Procurement in the global marketplace

With the expansion of production in Mexico, China and Thailand, JATCO will promote local production and LCC in order to secure fairness and to shorten the distance of parts transport in a global market.



Environment-related initiatives

Managing environmentally hazardous substances JATCO manages substances with environmental loads in its products based on the JES M9001 technical standards that regulate the use of specified substances. In FY 2010, we continued to pursue activities under this program together with suppliers, centered on the three items discussed below.

1. Global implementation of JATCO's Green Purchasing Guidelines

We manage substances with environmental loads on a global basis including the Japanese headquarters and overseas affiliated companies

2. Standardizing the application of Green Purchasing to new suppliers

We promote management of substances with environmental loads at new suppliers by asking them to submit Green Procurement-related documents

3. Conformance with the EU-REACH Regulation

We have expanded the scope of items under management to include not only the data on chemical substances in products but data on chemical substances in shipping parts and in packaging materials for transport and more recently supplies used in the production process (such as stationery including magic markers). We will continue with our persistent efforts to reduce the use of environmental load substances.

automobiles and the environment can coexist in harmony".

always share the same vision that, through transmission units, help achieve a society "where

Collaboration with suppliers

We will further promote Green Purchasing activities in response to rising environmental consciousness around the world. In addition, we provide awards to recognize suppliers which have made particular efforts towards JATCO's aspiration to achieve a society where "automobiles and the environment coexist in harmony" and cooperate in our endeavors. Since FY2011, we have also been recognizing suppliers which made contributions to business locations in Japan, Mexico and China, in addition to our global awards. The scope will be further expanded to include Thailand in FY2014. JATCO will continue to deepen its relationships with suppliers to work on initiatives for the environment.

Outline of Green Purchas

The Green Purchasing activities for which we are asking your cooperation at this time, are the activities to promote environmental conservation through the products purchased from our suppliers. Important activities include the following three items:

- 1. Confirmation of intention toward Green Purchasing 2. Development of an environmental management system
- 3. Reporting on the usage conditions environmental impact substan

We favor those suppliers who aggressively promote Green Purchasing activities in product purchasing. We also ask our suppliers to favor their suppliers who are aggressively promoting Green Purchasing activities in product purchasing





Picture of the 2013 awards ceremony

Aiming for safety first in the workplace

Through workplace risk assessment activities and employee health care, we are creating workplaces in which all employees can perform their jobs safely and comfortably.

Ensuring occupational safety

Social Activities

> With the intention of prioritizing safety in all our work processes, we have established "Absolute Safety" as our slogan, and are implementing safety initiatives with a focus on activities related to on-site observation, such as risk assessment activities, SESI*1, 5S patrols, safety patrols for plants (divisions), public work inspections, and safety commitment inspections.

> Work related particularly to processing glitches is accompanied by a high risk of work accidents occurring, as well as loss in production activities. We therefore place an emphasis on eradicating the need for such work.

> The risks that are identified through the implementation of these activities are recorded, and the degree of priority for responding to the risk as well as the appropriate countermeasures are determined based on the significance of the risk.

Ensuring employees' health (occupational health)

Mental health initiatives

To maintain the mental and phisical health of employees, we have partnered with an EAP *2 specialist organization to provide a stress evaluation for all employees once per year. The results are provided as feedback to each employee so that they can be aware of their own stress level. Consultation, evaluation, and counseling services are also made available to employee family members.

Training sessions previously available to managers and supervisors have been expanded to cover regular employees aiming for early identification of those requiring observation, as well as preventive measures.



JATCO

News

Act

Employees and our Workplace

Through the speedy implementation of "hard" countermeasures such as facility improvement and "soft" countermeasures such as education and guidance, we aim to move from a state of "zero accidents" to one of "zero danger."





A Safety check being carried out

Initiatives to improve employee lifestyle habits

To counter metabolic syndrome and other lifestyle-related illnesses, JATCO offers health guidance to employees who are identified as in need based on health check-up results. We provide various forms of guidance, such as continuous support including follow-up after interviews, to steadily improve their health condition and to achieve their health goals.



Guidance on preventing lifestyle-related illnesses

Health education events

From 2013, health education events are being carried out during the National Labor Health Week (October 1 through 7). Numerous activities were carried out in FY2014 for employee health education, including health lectures, the free distribution of relaxing goods, the promotion of sleep timers helpful in getting



a good night's sleep, and the production of an education video on sleep created with the PR department.

*1 SESI : An abbreviation for Safety Evaluation System, this is a system for quantitatively evaluating the level of safety in workplaces (JATCO safety evaluation

Employees and our Workplace

Aiming for workplaces that support individual growth

JATCO practices respect for diversity along with human resource development matched to the times. Our goal is to create workplaces that spur motivation to work and allow employees to experience growth as individuals.

Efforts to develop human resources globally

Dealing with globalization

Human resource exchange program with our overseas locations

To help young employees grow quickly as global human resources able to respond to our expanding overseas markets, JATCO operates a human resource exchange program with its overseas locations. This program aims to instill a global mindset in participants, not only through work but also diverse experiences that include everyday living.

Global Education Program

This program offers not only language study (English, Chinese, Thai, etc.) but also communication training (assertiveness, debate, etc.) and overseas intercultural training to enhance the skills and mindset needed for globalization.

Providing support for the development of human resources who can support overseas production sites

JATCO is advancing the development of local employees as part of its efforts to transplant the knowhow of on-site management and specialized skills that it has built up over many years at its production sites in Japan to its overseas production sites, so that they may be operated and implemented based on the same concepts and approaches.

Already, JATCO Guangzhou is putting in place human resource development initiatives using the same methods as in Japan, through the efforts of expatriates dispatched to Guangzhou from JATCO Japan. Starting from FY2013, the initiatives have been further expanded. Instructors from JATCO Japan were dispatched to JATCO Mexico for two and a half months to serve as trainers in various programs aimed at the development of Mexican supervisors. Currently, these activities are also

being extended to JATCO Thailand. Through these trainers who have undergone development programs, JATCO aims to raise the level of, and to develop, all employees working at JATCO throughout the world.



Training at our Mexican base

Respecting the independent growth of each individual

Nurturing personnel with independence

To enable new employees to thrive in whatever division to which they are assigned, we implemented our Freshman Leader system. Under this system, the senior employees who will directly supervise new employees in their assigned divisions offer guidance and advice to ensure a smooth entry into work and company life.

Fostering the desire to learn

To support employees that have a desire to learn on their own, JATCO has prepared educational courses that employees can take on their own. The program provides opportunities to take a variety of courses, ranging from job-related content to personal development programs not immediately related to work.

Working toward a corporate culture of recognition and praise

Thanks Card System

"Thanks for the quick response on..." "Thank you for always brightening the workplace with your cheerful greetings ... " These are the expressions of gratitude we write and exchange by card under the Thanks Card System introduced by JATCO.



Through on-the-spot expressions of gratitude, we aim to promote a culture of praise and boost employee motivation to be proactive.

Commendation System

The Global President Award and Executive Award are presented in commendation of the achievements and good conduct of employees who have contributed to improving the performance and reputation of the company. By accurately evaluating, recognizing, and commending such achievements



and good conduct, the company aims to create an environment where employees feel motivated to carry out their duties.

Respecting employee diversity

Undertaking diversity as a management issue

To develop our business globally and continue providing good value to customers while responding to changing times, we recognize the importance of creating new values that incorporate diverse perspectives. With that in mind, JATCO has positioned diversity as a management issue and has launched a variety of related initiatives.

In FY 2008 we established the Diversity Steering Committee, staffed by management personnel and headed by the President, to actively promote employment and human resource deployment without gender, nationality, or other bias.

Organizational chart of the Diversity Steering Committee

Committee Chair			Development Division Officers
President] -	Production Division Officers
Diversity Comr	Diversity Steering Committee		Purchasing Division Officers
Secretariat			
Human Resou	rces Departme	nt	

Work-life balance

ATCO

JATCO realizes the importance of the "work-life balance" mindset that enables compatibility between jobs and private life. We strive to create a workplace environment in which all can work with confidence and enthusiasm, and are expanding systems to flexibly allow work tailored to individual employees'

JATCO's initiatives have received praise from outside the company as well.

JATCO's support for men's participation in child care, including the promotion of work leave for fathers following childbirth and the raising of the target age for the shortened working hour program, resulted in the awarding of the "Next Generation Accreditation Mark" (colloquially known as "Kurumin") by the Minister of Health, Labor and Welfare in 2009 and 2012. This mark recognizes companies that fulfill specified criteria, including drafting, executing, and accomplishing general employer action

Development of the Next Generation. In September 2013, as part of the Ministry of Health, Labor and Welfare's Equality and Coexistence Promoting Company Awards, we were awarded "Chief of Shizuoka Labor Bureau Excellency Award" of the equality promoting company category, which is given to companies who promote exemplary initiatives that encourages fulfilment of potential of women.

Global Personnel Development

JATCO is developing personnel who can be successful on a global scale. I am involved in this important task in the Human Resources Department, and am running training programs such as understanding of cultural diversity, global communication, and improving skills, as well as language education. A "second-year employees overseas training program" was launched with effect from FY2013. The program is targeted at all employees who are in the second year of their employment. For this

countries first hand"

President's Commendation

Encouraging the activities of multinational human resources

As one of its diversity initiatives, JATCO promotes employment opportunities without concern for nationality. The company already has employees from many nations, including China, South Korea, and Mexico among others. Furthermore, initiatives have also been put in place to promote the exchange of human resources and technology between the respective overseas bases. At times such as during reviews for new projects, the relevant parties, including members of overseas bases, come together as global JATCO, and work as one to resolve issues



Interaction among members of overseas sites

circumstances. We have also positioned work-life balance as a measure supporting the promotion of diversity, and year by year are enriching our programs to support work that is compatible with child and family care.

plans based on Japan's Law for Measures to Support the



Next Generation Accreditation Mark (also known as "Kurumin")

fiscal year, it was held in Cambodia.

Participants remarked that they were "able to gain confidence that they could work overseas after actually getting out of the country and experiencing foreign

I will continue to contribute to JATCO's global business by planning and executing training programs that nurture global-mindedness for not only junior personnel who are new to the company, but also for all JATCO personnel.



Community Relations

Making efforts to contribute to society as a member of the community

Making ongoing contributions to the local community is a requirement for a good corporate citizen. At JATCO, we carry out communication activities rooted in our communities.

Providing facilities to the community

Cooperation with events

In addition to opening up facilities such as our gymnasiums and tennis courts to employees, their families, and local residents, we undertake communication with local communities through events held on our company grounds. Jatco takes part in summer festivals and other local events, providing shuttle buses as a part of our contribution to the regional activity.



JATCO Festa held at Yagi Area

Support for the Fuji City Foster Care Group

As one of its regular events, the Fuji City Foster Care Group holds a training get-together every October in Hakone, with participants enjoying pools, hot springs, and meals together while deepening communication. JATCO endorses the purpose of the event and offers support by providing microbuses.

Factory tours as a component of social studies and environmental education

As a component of social studies and environmental education for local elementary and junior high school children, we welcome factory tours by the students and their families. Our tour moves from processing to assembly sites as we explain the connection between cars and transmissions or the workings of gear shifting. We teach the challenges of manufacturing and also the importance of environmental preservation, through overviews of water treatment facilities and the recycling process.



Factory tours

Undertaking societal contribution rooted in communities

Local cleanup activities

We actively participate in regional activities aimed at cleanup, beautification, and environmental maintenance. Moreover, we have established an Environment Day at each workplace to regularly perform mowing and garbage pickup around factory grounds during lunch hour.



Cleaning of the Koikegawa river and potted flower gifting in the Kanbara area

Involvement in tree planting activities

JATCO is taking part in a project to plant native beech trees at the foot of Mt. Fuji to ensure that the natural wonders of the area can be passed down to future generations.



Participants of beech saplings planting project

Participation in the "Prefectural Rapid Cleanup Mission (Fuji City)"

Many JATCO employees are proactively participating in promoting the "little kindness" movement and to create a community that is easy to live in



Rapid Cleanup Mission near Fuii City Hal

Support for child facilities

JATCO donates picture books and story books to kindergartens and preschools in Fuji City and Nantan City.



Supporting children's facilities

Volunteer work at welfare facilities

At our locations in Shizuoka and Kyoto Prefectures, JATCO employees carry out ongoing volunteer work at nearby welfare facilities, assisting with tasks such as mowing grass, washing windows, and raking leaves.



Volunteer work at welfare facilities

Support for the Free Forest Study Helpers

Heavily tanned children worked on their "free studies" homework during the summer of 2014. The children carried out their free studies surrounded by their many friends in the abundant nature at the foot of Mt. Fuji. JATCO was active in supporting this activity.



Participating mothers and children arriving via a Jatco bus

IATCO

For abundance of spirit

We at JATCO are supported by countless people that enable us to continue our production activities. We carry on our production activities grateful for the company, the employees, our families, and the community. I feel that the employee contribution activities put that feeling into form. Through those activities we see the smiles of our families and the community, and the strong, inquisitive eves of the

children. We must keep those smiles going and meet

Internships for local technical high schools

To support the transfer of advanced skills and the early education of young technicians, the Ginou-Juku training centers held within our company dispatch lecturers to nearby technical high schools to provide instruction in high-level technical skills.

In addition, we also arrange internships for local technical high schools in order to deepen student understanding of the intricacies of Monozukuri, from materials through to machining and assembly, enable a more informed understanding of the workplace through the acquisition of technical and practical skills, and to provide a deeper understanding of related subject matter as well as help them make a career choice.



Internships for local technical high schools

Cooperation with hands-on events

Kids Engineers 2014 is an event for elementary school students hosted by the Society of Automotive Engineers of Japan. JATCO participated by hosting the class "What's a Planetary Gear? Let's Break Down the Heart of an Automatic Transmission". JATCO has supported the event from the very beginning in the hope that participating children will become engineers that support Japan in the future.



Kids Engineers 2014

the expectations of those children. I am happy as long as JATCO remains such a company, and our gratitude gives rise to more gratitude and contributes to the development of a society with abundance of spirit. Though the strength of each individual may be small, JATCO can serve as a powerful supporter for the community when the hearts of the employees work as one. I ask everyone for their cooperation.



General Admi

Environmental Data from our Production Bases





atmosphere	NOx : nitrogen compounds SOx : sulfur oxides ND : below lower li				
facility name	itom		regulation	measured value	
racility name	item	unit	(including agreed value)	maximum	average
	dust	g∕Nm ³	0.05	ND	ND
compact boller	NO X	ppm	100	75.3	41
(22 01113)	SO x	Nm³∕H	0.002	ND	ND
	dust	g∕Nm ³	0.05	0.029	0.012
metal-heating furnace (6 units)	NO X	ppm	150	130	79
lanace (o anito)	SO x	Nm ³∕H	0.018	ND	ND
steel-heating	dust	g∕Nm³	0.05	0.004	0.002
	NO X	ppm	150	34	28
lanace (o anita)	SO x	Nm³∕H	0.026	ND	ND
	dust	g∕Nm ³	0.05	0.048	0.010
aluminum-melting	NO X	ppm	150	82	32
furnace (10 units)	SO x	Nm ³∕H	0.019	ND	ND
	dioxins	ng-TEQ / Nm ³	5	0.043	0.018
	dust	g∕Nm ³	0.05	0.043	0.043
drying kiln	NO X	ppm	56	22	22
(1 unit)	SO X	Nm ³∕H	0.0048	ND	ND
	dioxins	ng-TEQ / Nm ³	5	0.0000014	0.0000014
drying combustion furnace (1 unit)	dioxins	ng-TEQ / Nm ³	5	0.069	0.069

water quality regulation values in parentheses are daily averages ND : below low					
itom	unit	regulation	measured value		
item	unit	(including agreed value)	maximum	average	
hydrogen ion concentration (pH)	-	$5.8 \sim 8.6$	7.4	7.2	
biochemical oxygen demand (BOD)	mg/L	20 (15)	2.6	1.6	
chemical oxygen demand (COD)	mg/L	20 (15)	4.9	3.5	
suspended solids (SS)	mg/L	20 (10)	2.0	1.3	
extractive substance in normal-hexane	mg/L	4	ND	ND	
copper	mg/L	0.1	ND	ND	
zinc	mg/L	0.1	0.07	0.05	
coliform group number	group/cm3	3000	0	0	
trichloroethylene	mg/L	0.3	ND	ND	
dichloromethane	mg/L	0.02	ND	ND	
boron	mg/L	10	0.1	0.1	
fluorine	mg/L	15	ND	ND	
ammonium nitrogen					
nitrate nitrogen	mg/L	100	2.5	1.2	
nitrite nitrogen					

Kambara



atmosphere	NOx:nitrogen compounds SOx:sulfur oxides ND:below lower li					
facility name	itom		regulation	measured value		
	item		(including agreed value)	maximum	average	
Levense heller	dust	g∕Nm ³	0.1	0.004	0.003	
(2 units)	NO X	ppm	130	98	69	
	SO x	Nm³∕H	0.045	ND	ND	
	dust	g∕Nm ³	0.05	0.007	0.005	
metal-neating furnace (1 upit)	NO X	ppm	150	140	140	
iumace (i umi)	SO x	Nm ³∕H	0.01	ND	ND	
	dust	g∕Nm ³	0.05	0.013	0.012	
aluminum-melting	NO X	ppm	100	20	18	
furnace (1 unit)	SO x	Nm ³∕H	0.013	0.003	0.003	
	dioxins	ng-TEQ / Nm ³	5	0.57	0.57	

regulation values in parentheses are daily averages ND: below lower lim					
item	unit	regulation	measured value		
Item		(including agreed value)	maximum	average	
hydrogen ion concentration (pH)	-	$5.8 \sim 8.6$	7.9	7.5	
biochemical oxygen demand (BOD)	mg/L	20 (15)	2.6	1.6	
chemical oxygen demand (COD)	mg/L	25 (20)	2.1	1.5	
suspended solids (SS)	mg/L	40 (30)	1	1.0	
extractive substance in normal-hexane	mg/L	5	ND	ND	
coliform group number	group/cm3	1000	0	0	
dichloromethane	mg/L	0.02	ND	ND	
boron	mg/L	10	ND	ND	
fluorine	mg/L	8	ND	ND	
ammonium nitrogen nitrate nitrogen nitrite nitrogen	mg/L	100	63.6	33.6	



atmosphere NOx:nitrogen compounds SOx:sulfur oxides ND:below lower limit						
facility name	itom	unit	regulation value (including agreed value)	measured value		
lacinty harne	Item			maximum	average	
	dust	g∕Nm ³	0.05	0.001	0.001	
(6 unite)	NO X	ppm	100	75	68	
(o units)	SO x	Nm ³∕H	0.01	ND	ND	
	dust	g∕Nm ³	0.01	0.009	0.0064	
metal-neating furpace (2 upite)	NO X	ppm	150	141	93	
iumace (o units)	SO x	Nm ³ /H	0.01	ND	ND	

water quality regulation values	s in parentheses	are daily aver	ages ND∶be	low lower limit
item	unit	regulation value	measure	ed value
		(including agreed value)	maximum	average
hydrogen ion concentration (pH)	_	$5.8 \sim 8.6$	7.6	7.3
biochemical oxygen demand (BOD)	mg/L	20 (15)	1.1	1.1
chemical oxygen demand (COD)	mg/L	20 (15)	0.7	0.7
suspended solids (SS)	mg/L	20 (15)	ND	ND
extractive substance in normal-hexane	mg/L	5	ND	ND
phenols	mg/L	5	ND	ND
copper	mg/L	3	ND	ND
zinc	mg/L	2	0.03	0.025
soluble iron	mg/L	10	0.06	0.05
soluble manganese	mg/L	10	ND	ND
chromium	mg/L	2	ND	ND
coliform group number	group/cm ³	3000	0	0
1,1,1-trichloroethane	mg/L	0.001	ND	ND
boron	mg/L	10	ND	ND
ammonium nitrogen nitrate nitrogen nitrite nitrogen	mg/L	100	1.1	0.9

Kakegawa Area Jatc0 School of Hills 21 10 Jefe

atmosphere NOx: nitrogen compounds SOx: sulfur oxides ND: below lower limit					
facility name	itom	it	regulation	measured value	
lacinty fiame	item	unit	(including agreed value)	maximum	average
	dust	g∕Nm³	0.05	ND	ND
compact boller (2 units)	NO X	ppm	100	53.5	57
	SO x	Nm ³∕H	0.01	ND	ND

water quality regulation values in parentheses are daily averages ND : below lower limit unit regulation measured value item - 5.8~8.6 7.5 7.3 hydrogen ion concentration (pH) mg/L 20 (15) 10.5 4.3 biochemical oxygen demand (BOD) chemical oxygen demand (COD) mg/L 80 (60) 24.7 18.2 suspended solids (SS) mg/L 20 (10) 5.2 2.3
 mg/L
 3
 1.2
 1.2

 mg/L
 2.5
 ND
 ND
 extractive substance in normal-hexane phenols copper mg/L 0.5 0.01 0.01 zinc mg/L 2 0.12 0.1 5 0.47 0.43 soluble iron mg/L soluble manganese mg/L 5 0.02 0.02 chromium mg/L 1 ND ND coliform group number group/cm³ 3000 650 62.5 cadmium mg/L 0.05 ND ND mg/L 0.5 ND cyanogen ND organic phosphorus mg/L 1 ND ND lead mg/L 0.1 ND ND hexavalent chromium mg/L 0.25 ND ND mg/L 0.1 ND ND arsenic ND mercurv mg/L 0.0005 ND alkyl mercury mg/L N/A ND ND PCB 0.001 ND ND mg/L mg/L 0.1 ND trichloroethylene ND mg/L 0.05 ND tetrachloroethylene ND carbon tetrachloride mg/L 0.01 ND ND 1,1,1-trichloroethane mg/L 1 ND ND 10 ND ND boron mg/L ammonium nitrogen 17.5 nitrate nitrogen mg/L 100 24.5 nitrite nitroaen



	atmosphere	NOx: nitrogen compounds SOx: sulfur oxides ND: below lower limit				
f 111		itom	unit	regulation	measured value	
	raciiity name	itein	unit	(including agreed value)	maximum	average
		dust	g∕Nm³	0.1	0.003	0.003
	compact boiler (1 unit)	NO x	ppm	150	66	32
	guideinie	SO x	Nm ³∕H	0.00	negligible	negligible
		dust	g∕Nm ³	0.1	0.008	0.006
	town gas boller (1 unit)	NO X	ppm	150	83	62
	(1 drile)	SO x	Nm ³∕H	0.49	negligible	negligible



atmosphere	NOx:nitrogen compounds SOx:sulfur oxides ND:below lower lin						
facility name	itom	unit	regulation	measured value			
tacility name	Item	unit	(including agreed value)	maximum	average		
and the line	dust	g∕Nm ³	0.1	negligible	negligible		
(11 upite)	NO X	ppm	150	57	36		
(TT units)	SO X	Nm³∕H	0.00	negligible	negligible		
	dust	g⁄Nm ³	0.1	0.021	0.005		
continuous carburizing	NO X	ppm	150	68	38		
iumace (ii umis)	SO x	Nm ³ / H	0.00	negligible	negligible		

water quality

regulation values in parentheses are daily averages ND : below lower limit

itom		regulation	measured value	
nem	unit	(including agreed value)	maximum	average
hydrogen ion concentration (pH)	-	5.8~8.6	7.6	7.4
biochemical oxygen demand (BOD)	mg/L	20 (10)	2.5	1.7
chemical oxygen demand (COD)	mg/L	30 (20)	5.0	4.0
suspended solids (SS)	mg/L	30 (20)	1.1	0.8
extractive substance in normal-hexane	mg/L	2.5	0.5	0.5
phenols	mg/L	0.5	0.1	0.1
copper	mg/L	1.5	0.01	0.01
zinc	mg/L	2.5	0.02	0.02
soluble iron	mg/L	5	0.1	0.1
soluble manganese	mg/L	5	0.1	0.1
chromium	mg/L	1	0.01	0.01
coliform group number	group/cm3	1500	2.00	2.00
nitrogen	mg/L	16 (12)	10.7	7.9
nickel	mg/L	1	0.01	0.01
phosphor	mg/L	1 (0.5)	0.2	0.2
boron	mg/L	10	0.5	0.2
fluorine	mg/L	7.5	0.2	0.2

JATCO



	atmosphere	NOx: nitrogen compounds SOx: sulfur oxides ND: below lower limit						
	facility name	itom	unit	regulation	measured value			
	lacinty name	nem		(including agreed value)	maximum	average		
	metal-heating furnace	dust	mg/m ³	450	57.64	40.32		
	(2 units)	NO X	Kg/hr	375	131.39	124.22		
al (2	aluminum-melting furnace	dust	mg/m ³	1085.01~610.34	50.02	17.42		
	2 units)	NO X	Ka/hr	_	—	—		

egulation values in parentheses are daily averages ND: below lower limit							
itom	unit	regulation value (including agreed value)	measured value				
nem			maximum	average			
hydrogen ion concentration (pH)	-	$5 \sim 10$	7.6	7.2			
biochemical oxygen demand (BOD)	mg/L	150	41.4	28			
chemical oxygen demand (COD)	mg/L	320	239.5	110.5			
suspended solids (SS)	mg/L	150	30	16.5			
extractive substance in normal-hexane	mg/L	15	12.7	9.2			
copper	mg/L	4	0.25	0.2125			
zinc	mg/L	10	0.84	0.348			



air and water quality: not applicable

Environmental Activities

				_
Corporate History	9	1943		
1943				
August: Begins operation as Yoshiwara Plant of airc division of Nissan Motor Co., Ltd.	raft	1970		
1970		\frown		1998
January: Japan Automatic Transmission Co., Ltd. established through merger of Nissan Motor Co., Lt Mazda Motor Corporation (then: Toyo Kogyo Co.)	d., (1989		June: (currer
April: Mitsubishi Motors Corporation established	,	1992 Earth Summit held in		Nover acquir
1989		Rio de Janeiro		Decer acquir
October: Japan Automatic Transmission Co., Ltd. changes name to JATCO Corporation		1993 Basic Environment Law enacted in Japan		1999
1997		1997	[Janua ISO14
September: JATCO USA Inc. established in USA		COP 3 held in Kyoto		2000
1998		• 1998 •	•/ /	April:
May: JATCO Korea Engineering Corp. established in Korea		1999		2001
1000		2000		Febru
June: AT/CVT division of Nissan Motor Co., Ltd.	/	2001	$\int_{\mathcal{T}}$	2002 Decer
October: TransTechnology Ltd and JATCO Corpora	tion			ISO14
merge to form JATCO TransTechnology Ltd	1	Earth Summit 2002	•	2003
2002		held in Johannesburg Revised Law Concerning		March
April: JATCO TransTechnology Ltd		Special Measures for Total Emission Reduction of		Nover
April: AT/CVT division of Mitsubishi Motors Corporation splits off to become Diamondmatic Co., Ltd.		Nitrogen Oxides and Particulate Matter goes into effect in Japan		2004
2003	/	• 2003 ·		Febru acquii
April: JATCO Ltd merges with Diamondmatic Co., Ltd.		2004		2005
April: JATCO Mexico, S.A. de C.V. established in Mexico	o /			Febru
October: JATCO France SAS established in France		2005 End-of-life Vehicle Recycling	ľ	2006
		Law goes into effect in Japan Kvoto Protocol takes effect		Decer
2004		2006		2008
May: JATCO Korea Service Corp. established in Korea		2000	[/	May: Medal
		• 2007		of Ind 2009
	/	2008 Start of first commitment	/	Februa
2007		period of Kyoto Protocol		awarde Factor
2007 Aprile 14TCO (Ouenerbeu) Autometie Trepopoierie Ltd		2009		Energy
established in China		International Renewable Energy Agency (IRENA) established		Releas
		2010	-	Mass
2011		2011		2011
July: JATCO (Thailand) Co., Ltd. established in Thailand		2012		May:
		2012		2013
		2013		Decen

Environmental and Quality Initiatives

JATCO Corporation acquires ISO14001 certification nt: head office, Fujinomiya Area, Kakegawa Area)

mber: Mitsubishi Motors Corporation Kyoto Plant res ISO14001 certification

mber: Mitsubishi Motors Corporation Mizushima Plant res ISO14001 certification

ary: Nissan Motor Co., Ltd. Fuji Plant acquires 001 certification (current: Fuji Area, Kambara Area)

Acquires QS9000 certification

ary: ISO14001 renewal assessment

mber: Diamondmatic Co., Ltd. Kyoto Area acquires 4001 certification (formerly: Kyoto Area, Yagi Area)

: Diamondmatic Co., Ltd. Mizushima Area res ISO14001 certification (current: Mizushima Area) mber: ISO14001 renewal assessment

ary: Affiliated firm JATCO Engineering Ltd res ISO14001 certification

ary: Acquires ISO/TS 16949 certification

mber: ISO14001 renewal assessment

Awarded Shizuoka Prefecture Governor's I for Distinguished Efforts in Proper Disposal lustrial Waste

ary: Fuji Areas 1, 2, 3, and 4, and Kambara Area ed commendation as Excellent Energy Management ries; awarded Agency for Natural Resources and v Director-General's Award se of the environmentally superior Jatco CVT7

production of transmissions for hybrid vehicles

JATCO Mexico acquires ISO14001 certification

nber: JATCO Guangzhou acquires ISO14001 cation

Corporate Information

Corporate Profile

Company Name	JATCO Ltd
Established	June 28, 1999
Head Office	700-1, Imaizumi, Fuji City, Shizuoka, Japan
Main Businesses	Development, manufacture and sale of transmissions and automobile components
Capital	¥29,935.3 million
Number of Employees consolidated)	13,797 (as of March 31, 2014)
Consolidated Net Revenues Reference)	¥602.5 billion (FY2011)
	¥592.5 billion (FY2012)
	¥710.9 billion (FY2013)

 Head Office and Fuji Area 	Fuji City, Shizuoka			
Shin-Yokohama Office	Yokohama City, Kanagawa			
Kambara Area	Shizuoka City, Shizuoka			
 Fujinomiya Area 	Fujinomiya City, Shizuoka			
Kakegawa Area	Kakegawa City, Shizuoka			
Kyoto Area	Kyoto City, Kyoto			
Yagi Area	Nantan City, Kyoto			
Atsugi R&D Center	Atsugi City, Kanagawa			
Okazaki R&D Center	Okazaki City, Aichi			
Motegi Proving Ground	Haga-gun, Tochigi			



Korea Service Cor
) (Guangzhou) Auto
France SAS/Franc
) (Thailand) Co., Ltd
ssee Americas mana
office/Korea
) (G) Fr) (Tl ssee offi

Main Customers NISSAN MOTOR CO., LTD. MITSUBISHI MOTORS CORPORATION SUZUKI MOTOR CORPORATION DONGFENG MOTOR COMPANY LIMITED RENAULT S.A.S



JATCO Ltd Head Office 700-1, Imaizumi, Fuji City, Shizuoka 417-8585, Japan PHONE +81-545-51-0047 FAX +81-545-51-5976 www.jatco.co.jp/ENGLISH