

# Hino Motors Environmental & Society Report — 2006

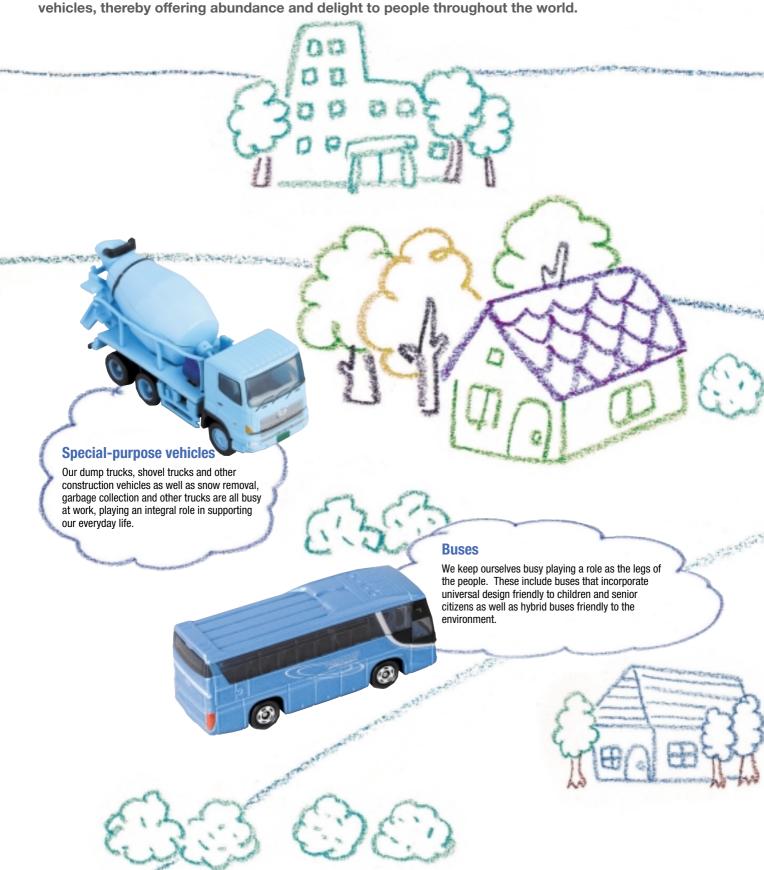
Hino Motors Ltd.

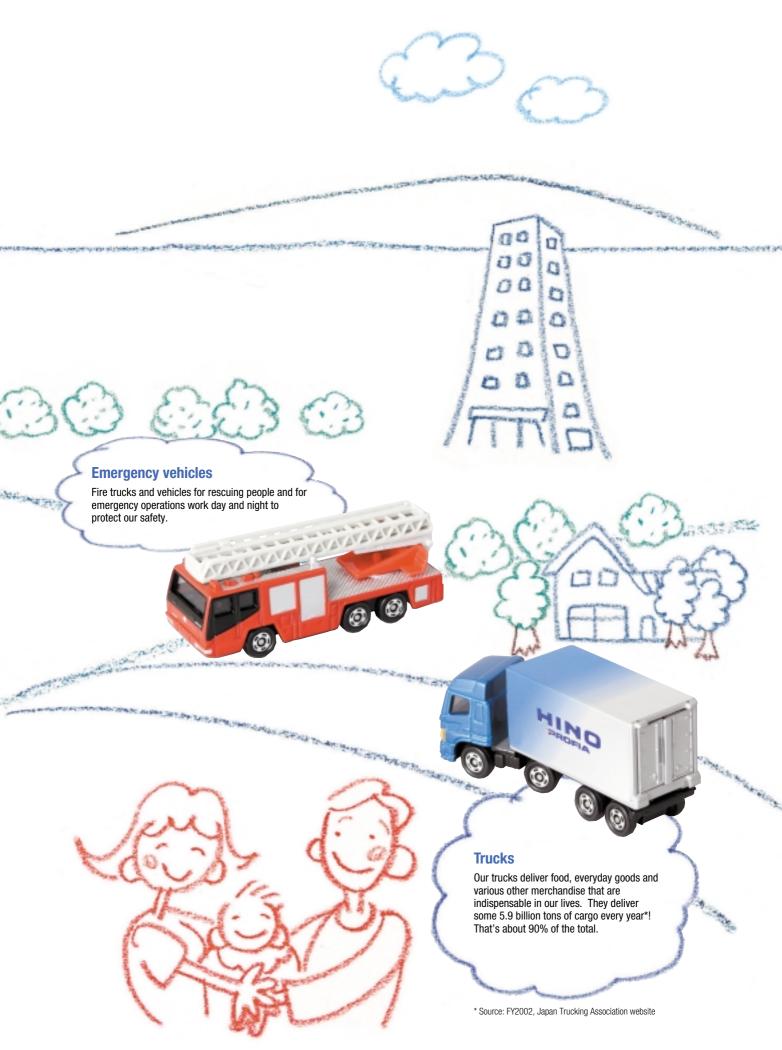
Supporting society by transporting people and goods



# A commitment to be beneficial to society by transporting people and goods — that is our stance at Hino Motors

The society in which we live is supported by a diversity of "working" vehicles. It is our intention at Hino Motors to contribute to distribution and the transport of people by manufacturing and marketing trucks, buses and various other working





# Manufacturing good vehicles and supporting transportation that is friendly to the earth and people — that's Hino Motors' social responsibility.

As a vehicle manufacturer, our mission at Hino Motors is to realize true abundance through the movement of people and goods. Speaking with Agnes Chan, singer and ambassador for the Japan support committee for UNICEF, President Kondo stated that, in addition to the basic necessities of life of clothing, food and housing, the element of 'emovement' is also necessary in order to achieve true happiness in life.



## Hino trucks and buses that support society

Kondo: You have traveled throughout the world, haven't you, Agnes? I have also traveled to many places around the globe. In Africa, I was given the impression that 'humans are animals that run.' People who have nothing to eat run in order to obtain food. Though they say that it is just a short distance, they will run four or five kilometers without any complaints.

Meanwhile, those very few people who have plenty to eat also run, as you might expect. Perhaps it's part of a diet regimen or maybe to make up for a lack of exercise. Whatever the case, I am very keenly aware of the imbalance between hunger and over-eating that exists in many places around the world.

Chan: I traveled to the Kingdom of Lesotho in South Africa in April 2006 as the Japan UNICEF ambassador. It is said that one out of four of the total population of 1.8 million has been infected with HIV (AIDS). At a mountain village that I visited, it takes seven hours on foot to go to the nearest clinic and two days to get to a hospital with somewhat better facilities.



Kondo: They aren't able to go to the hospital by bus or receive deliveries of food or medicine by truck, which we take for granted. They say that clothing, food and housing is necessary for human life but, in order to live a life of happiness, a means for transporting in addition to the clothing, food and housing is also important.

Chan: Moving people and delivering goods is, in a very

important sense, a form of communication. In other words, I think that they have the same meaning as freedom.

Kondo: That's right. That is precisely where you find the real meaning of the task of producing trucks and buses. In addition to our job of manufacturing vehicles, a diversity of efforts by many other people is also necessary in order to realize the 'freedom' that you just mentioned, that is, in order to realize movement.

Chan: From my experience in volunteer activities, moving a single truck loaded with assistance goods seems to be a terribly difficult task. I realize that, if there isn't someone there to support logistics, you wouldn't be able to get the truck moving even if you had one.

### What Hino Motors can do for the global environment

Chan: Global warming, reduction of CO2 emissions and other problems that are advancing on a global scale have become important issues, haven't they?

Kondo: We are striving at Hino Motors to improve fuel efficiency and further reduce CO<sub>2</sub> emissions. In addition, we have also made rapid strides in producing trucks and buses that are in compliance with the New Long-Term Emission Regulations of 2005 with sharp reductions in particulate matter (PM) and nitrogen oxides Excellent fuel economy is a major characteristic of Hino vehicles. Even so, cleaning up emissions and reducing consumption are difficult

Chan: Though there are some people who refuse to see CO2 emissions as the direct cause of global warming, the problem of desertification advancing throughout the world is so serious that it renders that argument meaningless.

Kondo: Yes, you're right. Places known as the birthplace of the four great ancient civilizations of the world that once knew exceptional prosperity have been overcome by advancing desertification over a period of just a few thousand years. Present-day civilization as well will probably be unable to escape the threat of desertification. One way or another, we must prevent global warming and put a stop to desertification by reducing CO2 emissions.

What I think is important in that respect is the culture of "mottainai" of Japan. The ability of Japanese companies to produce vehicles with excellent fuel efficiency must certainly be an outcome of that culture. As an "environmental frontrunner," we intend to make positive contributions to the global environment by supplying customers throughout the world with trucks and buses with world-class environmental performance.

### Desire to be of benefit to the customers that support our livelihood

Kondo: By the way, do you usually drive yourself? Do you perhaps have your golf bag or something loaded in the trunk of your car?

Chan: Well, I don't have any golf bag but I carry a lot of my books that I give away as gifts (laughter). Kondo: Well, then, your fuel efficiency is probably not very good (laughter). Are you aware of the tremendous efforts that we vehicle manufacturers make just to reduce vehicle weight by 10kg? After all, reducing vehicle weight also leads to lower fuel consumption.

Chan: No, I didn't know that. Are there other means that you use to improve fuel efficiency?

Kondo: What I would like everyone to think about is that fuel consumption can vary by as much as 20-30% depending on how you drive. You should not press the accelerator too much, you should not make sudden acceleration and you should drive while having prospect of traffic circumstances so that you can avoid wasteful sudden braking. They will result in a tremendous improvement in fuel efficiency.



Chan: Really! A 20-30% difference! That is definitely something that we all should be doing. Kondo: Yes. That's why we set up the Customer Technical Center as a place where customers can learn about fuel-efficient driving. After we sell vehicles, we place importance on activities that support the customers by providing learning opportunities or information. Safe driving instruction and other activities are also being carried out at the Center.

Chan: That's great. Since you are manufacturing fuel-efficient trucks and buses with considerable efforts, I hope that the drivers will also drive in a manner that is friendly to the global environment.

Kondo: Speaking of initiatives that support the customer, this winter I was able to ride along in a truck of one of our transport company customers on the Tomei Highway in the middle of the night. The Tomei Highway in the middle of the night is choked with truck traffic. The drivers travel at night in order to deliver their goods to markets in Tokyo first thing in the morning. Then, they take a nap at a service area so that they can adjust the time of their arrival at the market. Of course, they turn the engine off out of consideration for fuel efficiency and the environment and so the air conditioning is also turned off. They wrap themselves up in blankets as they take a rest in their chilly trucks trembling with cold. Given our own life in the city, we hardly even realize that there are people who have to put up with this sort of thing.

As a global truck and bus frontrunner, we of course produce excellent vehicles. Furthermore, in our role of supporting society, we will continue to provide our customers with various services for the environment and safety. It is our intention to contribute to society by doing so.



**Profile** 

Shoji Konda

Shoji Kondo Representative and President Hino Motors, Ltd.

Joined Toyota Automobile Industry Co., Ltd. (currently Toyota Motor Corporation) in 1965, became vice president of Hino Motors Ltd. in 2003 and promoted to his current position in 2004.



**Profile** 

Jan Jan Jan

#### Agnes Chan

A native of Hong Kong, she made her singing debut in Japan in 1972 with the song Hinageshi-no-Hana (Poppy Flower). She earned a PhD degree in education in 1994 and was appointed as ambassador of Japan UNICEF in 1998. In addition, she is also an essayist and university professor and is engaged in wide-ranging activities throughout the world.

### Corporate Profile

### Hino Motors, Ltd.

#### Capital:

72.7 billion yen (as of March 31, 2006)

#### No. of employees:

9,507 (as of March 31, 2006)

#### Products:

Trucks, buses, special-purpose vehicles, small commercial vehicles, automobiles, vehicle engines

#### No. of truck and bus shipments:

100,710 units

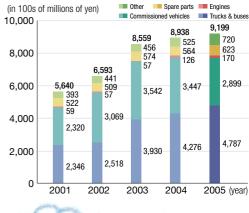
#### Commissioned vehicle production:

188,779 units

#### Net sales:

919.9 billion ven (FY 2005)

#### Transitions in sales





### Hino Motors Organization



Hino Motors, Ltd.



Domestic related companies

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Related companies overseas

Domestic sales companie

Domestic production companies

Other domestic related companies

Production companies overseas

Other related companies overseas



#### ■Hino Motors Offices and Plants in Japan

#### Head Office and Hino Plant

3-1-1 Hinodai, Hino-shi, Tokyo 191-8660, Japan Tel. +81-42-586-5111

#### Hamura Plant

3-1-1 Midorigaoka, Hamura-shi, Tokyo 205-8660, Japan Tel. +81-42-579-0411

### Nitta Plant

10-1 Nitta-Hayakawa-machi, Ota-shi, Gunma Prefecture 370-0344, Japan Tel. +81-276-56-5111

#### Tamachi Office

4-11-3 Shiba, Minato-ku, Tokyo 108-0014, Japan Tel. +81-3-3456-8811

#### Ibaraki Gozenyama Proving Ground

2023 Nagakura, Hitachiomiya-shi, Ibaraki Prefecture 311-4613, Japan Tel. +81-295-55-3122

#### Hokkaido Memuro Proving Ground

26-1 Omabetsu 14-sen, Memuro-cho, Kasai-gun Hokkaido 082-0382, Japan Tel. +81-155-66-2511

#### Hidaka Vehicle Stock Yard

689-1 Kamikayama, Hidaka-shi Saitama Prefecture 350-1234, Japan Tel. +81-429-85-4747

#### Ohme Parts Depot

1-5-1 Suehiro-cho, Ohme -shi, Tokyo 198-0025, Japan Tel. +81-428-32-9911

 $05...... {\it Hino Motors Environmental \& Society Report 2006}$ 

#### **Upon the Preparation of this Report**

The environmental reports issued annually by Hino Motors were given a new name last year, the Hino Motors Environmental & Social Report. In undertaking its preparation, we sought to provide a more easily understandable introduction to the way in which trucks and buses are involved in our lives and the sort of company that Hino is while keeping the relationship to our stakeholders firmly in mind.

This year, the second for our Hino Motors Environmental & Social Report, we are increasing the content of our social initiatives with the inclusion of efforts to achieve the safety and security that society demands of buses and trucks as a special feature while taking into account the content of last year's report.

#### Scope of the Report

This report also includes some of the environmental conservation activities of Group companies based on the environmental conservation and social activity plans and commitments of Hino Motors.

#### Report Period

Though the report generally describes initiatives during FY2005 (April 2005 -March 2006), some initiatives from FY2004 or earlier and others carried out until the time of report issuance are included as well.

This report contains certain forward-looking statements based on plans and prospects, which are subject to uncertainties that could cause actual results, performance, etc., of Hino Motors or Group companies to differ materially from those expressed or implied by such statements.

#### Report Notations

Efforts have been made to ensure that notations in the report are easily understandable in order to make it more accessible to everyone using our trucks and buses, cargo shippers, passengers and other stakeholders.

#### Referenced Guidelines

This report was prepared with reference to the Ministry of the Environment's Environmental Report Guidelines (FY2003 edition).

We have included a questionnaire at the end of the report and would like to receive your frank opinions.

We look forward to hearing your impressions and comments about this report. It is available on the Hino Motors website (http://www.hino.co.jp/) in PDF format. Our Website also provides descriptions of the following environmental initiatives.

- Environmental report by vehicle model
- List of vehicles in compliance with the Law on Promoting Green Purchasing
- Lineup of low pollution vehicles
- Hino Motors press releases on environmental issues





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# Stance toward activities to be a Safety FrontRunner and specific initiatives.

A large share of the goods that we require in our lives everyday is brought to us by truck. In addition, buses, which have become firmly rooted as a means of transportation in the community, carry many passengers every day.

We at Hino Motors are well aware that safety and security represent strong demands that our customers and society have of trucks and buses.

# **Initiatives for Safety**

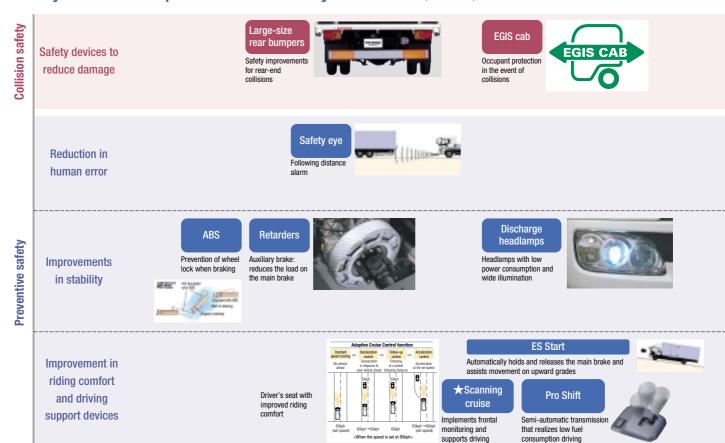
Hino Motors gives thought to safety based on the concept of total safety with the triad of vehicles, people and the transportation environment as the fundamental principle.

- Vehicles: We have conventionally sought to incorporate improvements in vehicle safety, both active and passive, and, together with that, we are striving to improve preventive safety linked to various transportation support systems, the reduction of traffic accident and easing of impact in the event of a rear-end collision.
- People: We provide safe driving instruction that incorporates measures enlightenment regarding "perceptions, judgments and responses" of persons involved in vehicle operation taking the actual circumstances of commercial vehicle use and factor analysis of accidents involving commercial vehicles into account. As a part of such activities, we have set up a permanent training facility where driving instruction is provided using actual vehicles.
- Transportation environment: We promoting collaboration in various initiatives

with the government and organizations and are actively participating in ITS (Intelligent Transport Systems), AHS (Advance Cruiseassist Highway Systems) and various other research activities.



# History of the development of truck safety ★: First developed in Japan



1990 2000

# **Initiatives for Security**

We at Hino Motors think that initiatives aiming not only to realize safety but security as well are required in trucks and buses that support the business activities of our customers.

In other words, this refers to security in terms of hardware consisting of the ownership and operation of vehicles equipped with various safety functions and an established maintenance structure and to security in terms of systems consisting of driving management and so forth including seminars for improving safe driving skill.

- Hardware: Areas relating to vehicle aftersales service (preventive maintenance; response to sudden breakdowns 24 hours a day, 365 days a year; improvements in maintenance quality, etc.)
- Systems: Provision of full line of menus for activities beneficial to the customer such as systems for fuel-efficient operations, risk prediction training sessions; safe driving and fuel-efficient seminars and a wide range of other activities for use by the customer...

We feel that it is possible for occupants of vehicles that share the road, pedestrians and bus passengers to feel secure only when these two elements operate in harmony.

We are making every effort to improve the sense of security of our customers and society through these activities.



Front Underrun protector

Improvement in safety in the event of frontal collisions involving trucks and automobiles



Occupant protection collisions

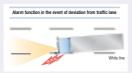






Lane deviation alarm device

Issues warning alarms in the event of deviation from traffic



★Obstacle detector and automatic braking system

Detects obstacles on the roadway, issues alarms and the system applies the brakes so that collision damage is reduced

See p.9 for detailed information



★Left rear side auxiliary camera

Field of view assistance during operation or when starting

Lowering the height of the front lamps

#### **★**Tire air pressure monitor

Enables constant confirmation of tire air pressure from cabin

★Roll Stability **Assist** 

Helps in reducing trailer rollover



**★**VSC Vehicle sideslip control

See p.10 for detailed information

**High function seats** 

Driver's seat that pursues improved holding ability and relaxation

Improvement in driving comfort Improvement in straightrunning stability

2003 2006

# Continuous efforts for further improvement of truck and bus safety by focusing on the most up-to-date technology.

Hino Motors, which focuses efforts on further improvement of truck and bus safety improvements to be frontrunner, continues its endeavors aimed at reducing traffic accidents involving commercial vehicles by taking the lead in promoting research in safety technology and making new technology available.

# Prompt development of products using new safety technology

In surveying the current circumstances in Japan involving traffic accidents, we see that, while the number of accidents remains essentially level, there has been a tendency toward a gradual decline in traffic fatalities. Even so, about onefourth of the 7,000 or so traffic fatalities unfortunately involve commercial vehicles.

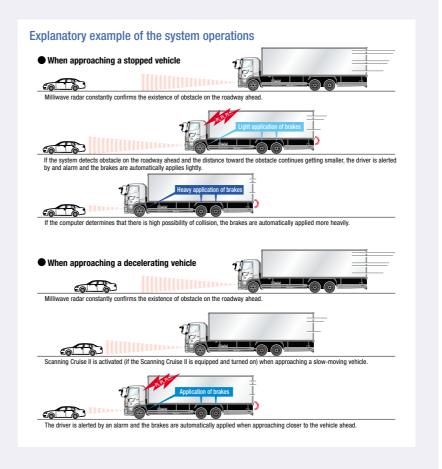
Given the important mission pursued by trucks and buses in supporting the social infrastructure, it is Hino Motor's fundamental principle to persist in unrelenting efforts to develop new safety technology. Through these efforts, we intend to create new safety technology and make it available as quickly as possible in the form of new products. We are furthermore aiming to playing a leading role in safety improvements in our automobile-based society through technology originated with Hino Motors.

One concept that has been created through this policy by Hino Motors is CAPS (Collaboration with Active and Passive Safety), which promotes comprehensive improvements in preventive and collision safety by integrating a broad diversity of technology spanning everything from cabin structure to electronic control devices.

We are taking proactive steps to promote the pursuit of more advanced safety through the development of new technology such as Obstacle detector and automatic braking system (the world's first practical application for commercial vehicles realized in FY2005) and VSC (Vehicle Stability Control), technology for large-size tractor vehicle stabilization control, and other technology.

# Obstacle detector and automatic braking system

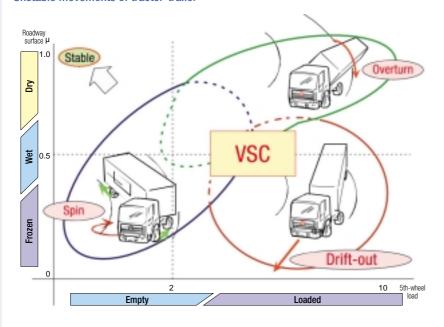
This is a system that detects obstacles on the roadway ahead by means of milliwave radar installed near the front bumper. computer determines that there is a high possibility of a collision, the driver is alerted by an alarm and the brakes are automatically applied.



# **Vehicle Stabilization Control (VSC)** of heavy-duty tractor-trailers

Heavy-duty tractor-trailers that pull trailers and transport goods in large volume play one of the key roles in distribution. Depending on loading and road conditions, however, there has been considerable risk of rollovers or other serious accidents especially for heavy-duty tractortrailers by its nature. We incorporated improvements in the first rollover resistance system in Japan and developed the VSC system, which prevents accidents on slippery roadways. It realizes better vehicle control performance in certain circumstances.

#### Unstable movements of tractor-trailer



#### When approaching a corner on compacted snow



Not equipped with VSC

Equipped with VSC

#### When approaching a corner at an excessive speed



Not equipped with VSC

Equipped with VSC

# Selecting and implementing R&D in high priority product fields for the promotion of further improvements in safety.

In order to realize a safe society, we at Hino Motors are endeavoring to develop safety technology based on the concepts of "total safety of vehicles, people and the transportation environment" and "preventive and collision safety."

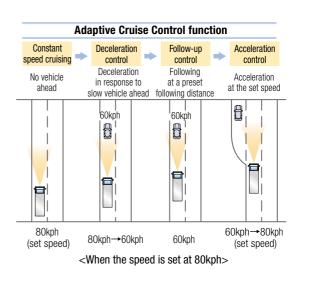
### Responsibility to customers in product development

At Hino Motors, we will continue to strive for the realization of total safety from three perspectives, "reduction of fatigue" of drivers, "preventive safety" and "collision safety" assuming various accidents.

# Preventive Safety — safety technology for the driver assistance in prevention of accidents

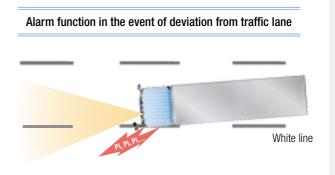
#### Scanning Cruise

It monitors the vehicle ahead using infrared laser radar and sounds an alarm when the distance narrows toward the vehicle ahead, urging the driver to be attentive.



#### Warning alarm for deviation from traffic lane

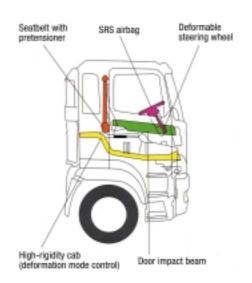
It detects the lane (white line) on the roadway ahead by means of an image sensor and sounds an alarm in the event of deviation from traffic lane.



# Collision safety — Safety device that reduces damage in the event of an accident

#### EGIS cab

The EGIS cab is the generic term for the cab equipped with various functions for crashworthiness including high-rigidity cabs, door impact beams, SRS airbags, deformable steering wheels, collapsible tilting steering columns and seatbelts with pretensioners.



#### Front Underrun Protector

It prevents automobiles from sliding under heavy-duty trucks in the event of a frontal collision between an automobile and truck. It effectively activates the function of absorbing the impact of the automobile and reduces damage to the automobile.



# From a connection of "points and lines" to one of "surfaces" In order to further strengthen the development of our bond with customers

Customers involved in transport work, who are our direct customers, will be using their Hino trucks and buses for many years to come. In addition to service at the time of the sale, such as to supply optimal vehicles beneficial to the customer while looking ahead to regulations and other information in the future, we aim to provide various services and information in order to contribute to further improvement of safe driving skills and to boost revenues of our customers.

# **Establishment of the Customer** Technical Center, the first permanent customer learning facility established by a vehicle manufacturer in Japan

According to the data of the Ministry of the Environment of Japan, some 8.2% of total CO<sub>2</sub> emissions is generated by trucks. There has been mounting concern in society regarding the reduction not only of CO2 but also NOX, particulate matter (PM) and other emissions. In addition, there is also a growing need for low fuel consumption vehicle operation due to circumstances in the business operations of customers including the surging price of diesel fuel and depressed transport charges. Deregulation has furthermore resulted in an increase in drivers with limited driving experience. Safe vehicle operation is becoming major issue due to recent increase in the number of accidents.

Hino Motors has been offering opportunities for customers to learn fuel-efficient driving and safe vehicle operation using a vehicle test course; however, in order to be able to respond to more requests from customers, it opened the Customer Technical Center on the Hamura Plant premises in June 2005 as a permanent facility for customer learning.

The Customer Technical Center has an oval track with a total length of 1.2km, a demonstration area where courses are set for safety instruction. presentation room for training use and a center office with an exhibit area for environmental and safety technology, which are capable of the consistent implementation of everything from classroom lectures to hands-on driving practice.

The staff is made up of a team of employees who have been involved in the environment and safety as development-related engineers with skills in fuelefficient driving and other areas. They convey the essential points of fuel-efficient driving and safe vehicle operation while also providing information on the most recent technology.



Center office







Presentation Room



Deputy General Manager Customer Technical Center Akira Iwai

To tell you the truth, I was really surprised at the large number of requests that we received from customers regarding fuelefficient driving and safe vehicle operation. Our goal when we opened the facility was to have a course with about 3,000 participants a year but, as of April 2006, there were about 3,900. While consulting individually with each of them, we have pursued activities with the intention of being prepared to do whatever we were able. In some respects, though, it is difficult to sufficiently respond to customers nationwide requests with the center alone. We intend to expand our activities through various measures such as supporting customers in training the customers themselves as instructors.

#### **Fuel-Efficient Driving Instruction**



First of all, participants drive a vehicle on the track as they ordinarily do. They then take a lecture for about 30 minutes and drive on the track again. They at times show remarkable improvement by merely learning about acceleration, gear change timing, use of engine brakes and other basic items during the lecture. There are even some who experience an improvement in fuel economy of as much as 30%. After the instruction, they are provided with comprehensive

analysis data regarding the amount of fuel savings per year and the amount of CO2 emissions that can be reduced as the result of fuel-efficient driving.

#### Safe Vehicle Operation Instruction

The course used for the instruction is set in the demonstration area. Lectures are given in cranks, parallel parking and avoiding obstacles. Large number of participants are involved in pickup and delivery operations in urban areas, but the curriculum for the

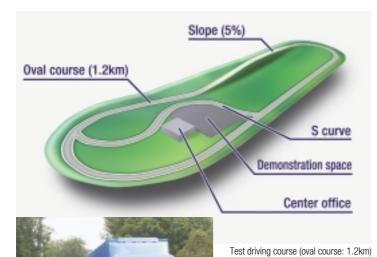


lectures and the course setting for the instruction are decided in line with the participants' various demands.

#### **Simulator**



A simulator is used that reproduces "G" (acceleration) at the time of sudden braking or overturns, providing hands-on experience in new safety technology.



Driving the test driving course with "S" curve

### The voice of participants (excerpted)

- I got a good understanding of the fuel-efficient driving and its effects. The majority of the participants had never received any instruction in fuel-efficient driving and it was a very good experience.
- I have been attempting to realize fuel economy by using a digital tachograph and was surprised to be able to achieve an additional 20% reduction after receiving the instruction
- I understood the difference in fuel consumption that can be realized with just a little effort.
- I was surprised at the effects of fuel-efficient driving (rate of improvement in fuel consumption). This experience gave me confidence in ongoing instruction and will make use of it in educational activities at the company.
- Though fuel efficiency is also important, instruction with the emphasis on safe driving was very beneficial. I intend to introduce this instruction to all of our sales offices.
- I gained new knowledge. We will use the videotapes and manuals as instructional materials in the company and thoroughly familiarize our crew with them.
- I understood the importance of safety through the simulator experience.
- I was given a strong impression of Hino's stance toward safety through the exhibit.
- . This sort of center should be established regionally.

# Hino Motor's

# initiatives in the environmental field

# **Environmental consideration in** manufacturing trucks and buses

<Initiatives in the development of technology and products>

We are promoting efforts to develop technology that reduces emissions and improves fuel efficiency as well as products that assume eventual recycling with the aim of reducing the burden on the environment.

→ See pp. 17-24 for detailed information



# Our Philosophy

Trucks and buses support the everyday lives of the citizens while also placing a burden on the environment. That is precisely the reason why the major issue that we face is finding ways to reduce that burden.

# When manufacturing trucks and buses

<Initiatives for chemical substances in production and distribution>

We have formulated a long-term plan for the reduction of the burden on the environment supported by four cornerstones, namely, energy conservation, reduced water usage, reduced emissions and reduced use of chemical substances. We are promoting measures for improvements with the aim of achieving the plan.

See pp. 25-28 for detailed informatio





# Reducing the environmental impact of our products, trucks and buses. at all stages from development to disposal

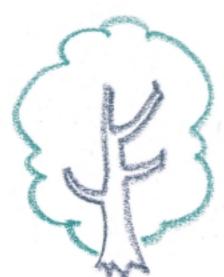
# Trucks and buses that have ended their usefulness

<Initiatives for recycling>

We are pursuing the reduction of the burden of raw materials on the environment by promoting the recycling of trucks and buses.

→ See pp. 23-24 for detailed information





# Relationships with partners working with us

<Relationships with business partners>

Collaboration with business partners that possess a diversity of technology and expertise is indispensable in developing our business activities. While cooperating with them, we will continue to strive to realize a comprehensive reduction in the burden on the environment.

See pp. 29-30 for detailed information





# When selling trucks and buses

<Initiatives at sales companies>

We have developed environmental management systems at sales companies and are making active efforts in environmental management in sales

→ See pp. 31-32 for detailed information



In order to prevent the expansion of global warming and environmental pollution that continues to advance on a global scale, we are promoting a reduction in the environmental impact through the vehicle life cycle from product development to disposal without being shackled by regulations and are striving to realize the company philosophy of "aiming to endow the earth with rich abundance and comfortable living while continuing efforts to create new value."

We aim to maintain our position as environmental frontrunner in the field commercial vehicles by providing products that combine both environment performance and convenience as a manufacturer of the commercial vehicles that support the groundwork of our everyday life. In order to give tangible form to our intentions, we reexamine our environmental initiatives every five years and promote sustained activities for improvement.

At the end of 2005, we released our 4th environmental action plan for realization by 2010. This action plan sets forth five goals, namely, "the promotion of energy-saving and anti-global warming measures", "promotion of resource recycling", "reduced use of substances that burden "atmospheric the environment", environment conservation", and "the further promotion of environmentally-oriented business management" supported by the three pillars of "a reduction in the environmental burden in overall company activities", "further promotion of the environmental conservation activities of the Hino Group", and "coexistence with society".

We will continue henceforth to actively pursue environmental conservation reflecting our pride as environmental frontrunner.



Executive Vice President. Member of the Board Bunji Haqiwara



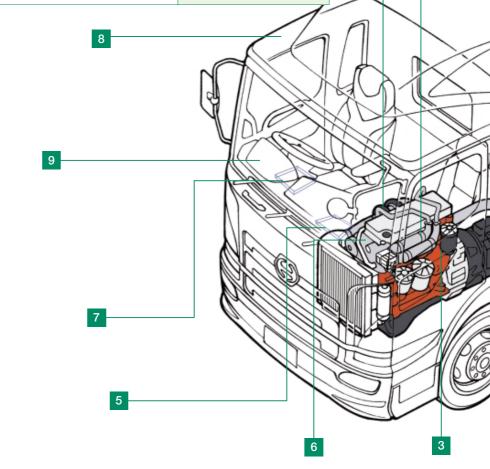
promoting the continued evolution of reliable existing technology.

Aiming to achieve this lofty goal, these regulations were achieved through the further evolution of the low-polluting diesel system "DPR", which acquired 4-star certification under the New Short-Term Emission Regulations of 2003-04.

Low emission certification and achievement of fuel efficiency standards



The Ministry of Land, Infrastructure and (MLIT) implements Transport assessment and certification of vehicle emission reduction performance with the aim of promoting the dissemination of vehicles high-level with reduction performance. In addition, in the area of fuel efficiency, it certifies vehicles that succeed in the early achievement of fuel efficiency standards stipulated by the Law concerning the Rational Use of Energy (Energy Conservation Law). In June 2006, Hino Motors acquired MLIT certification of some models as low emission vehicles and vehicles in compliance with fuel efficiency standards of 2015.



#### 1 Combined EGR system

The world's first combined EGR system consisting of the further evolution of Hino's unique Pulse EGR system combined with high-efficiency Cool EGR enables both a broad reduction in NOx and excellent fuel efficiency.

### 2 Turbo intercooler

The newly-developed high-efficiency intercooler enables high output and torque and realizes a broad improvement in fuel efficiency.

#### 3 Common-rail fuel injection system

The newly-developed common-rail system adopts a multi-injection function and realizes clean combustion through the precise computer control of injection volume, timing, pressure and other aspects. In addition, it also enables forced regeneration of DPR making use of the multi-injection function.

#### 4 DPR cleaner

We developed full-scale ceramic DPR filters, which reduce particulate matter (PM) by 95% or more, enabling a broad reduction in PM.

#### 5 Model-Based Engine Control System

The model-based engine control computer feeds information received from sensors back to the various systems. Comprehensive more finely tuned control enables a greater reduction in NOx, PM and CO2.

#### 6 Idling stop system

The engine automatically stops when the shift lever is placed in the neutral position while the vehicle is stopped due to congestion or at a traffic light. Besides reduced emissions and noise, this also contributes to lower fuel consumption.

### 7 Hino Drive-Master eco-driving support system

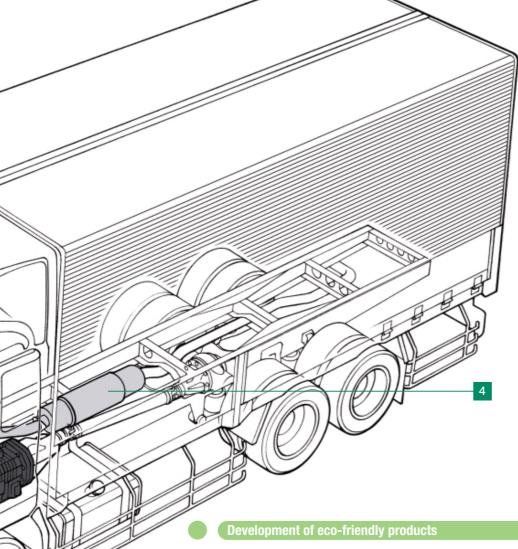
Alarms are issued when drivers exceed numerical values set by operations managers for acceleration, engine RPM, idling time and vehicle speed. It is also possible to measure and confirm data beneficial in vehicle operation guidance.

#### 8 Aerodynamic characteristics

The cab style with outstanding aerodynamic characteristics promotes further reductions in fuel consumption.

### 9 Recyclable materials

Thermoplastic resin with excellent recyclability is used for interior parts. Recycled materials are also actively used in the felt surface of floor mats, seat cushions and battery covers.



# **New Long-Term Emission Logo**



This logo marks indicates that Hino Motor's eco-friendly trucks and buses employing the latest ultralow exhaust emission technologies and it is appended to all Hino Motors vehicles that are in compliance with "the New Long-Emission Regulations". Depicting the earth and a tree on an oval-shaped base, it expresses consideration for the environment.

The Hino Profia, a heavy-duty truck in compliance with the New Long-Term Emission Regulations was released prior to the products of industry peers. Light-duty trucks will also be released successively on the market.



#### Hino Profia heavy-duty truck

The Hino Profia series, which underwent its first full model change in thirteen years, demonstrates advanced environmental and safety performance and, as a heavy-duty truck that will serve as a leader in distribution in the 21st century, it has been newly developed throughout with a broad upgrade in performance and product competitiveness.



#### Hino Dutro Hybrid light-duty truck

This truck realizes more effective running operation in urban areas through a combination of a clean diesel engine and hybrid system fully developed by Hino. In addition, even with a heavy load when accelerating or climbing a hill, emissions are simultaneously cleaned through the use of the motor that assists the engine.



#### Hino Ranger medium-duty truck

Aiming at a cleaner truck, the Hino Ranger is equipped with advanced environmental performance features. The new unique DPR system broadly reduces soot from emission gases. Environmental performance has been further enhanced as a truck worthy of the 21st century with all models in compliance with the New Long-Term Emission Regulations.



#### Hino Blue Ribbon City Hybrid large-size non-step route bus

Both specifications and environmental performance have been greatly improved through the further evolution of hybrid technology nurtured over the years. Reducing the hybrid unit in both size and weight and installing it on the roof has made it possible to realize floors with non-steps.

# **Reducing Exhaust Emissions**

#### **VISION**

### Low emission performance of the unapproachable leading diesel manufacturer in the world.

Hino Motors is coping with environmental problems as issues of vital importance. Unhampered by regulations, it is taking positive steps to transform technology effective for environmental improvements into new products for release on the market.

#### **Key Words**

# Compatible with New **Long-Term Emission** Regulations

The world's most stringent emission regulations

# Response to Exhaust Emission Regulations

We released vehicles certified as the cleanest ultra-low PM (particulate matter) vehicles (4-star, equipped with DPR) with PM emissions reduced to the same level as the New Long-Term Exhaust Emission Regulations applicable to all trucks whether heavy- or light-duty In 2003-04, which have been well received. We have also released hybrid trucks with NOx reduced to the level required by the New Long-Term Exhaust Emission Regulations and light-duty trucks equipped with DPNR.

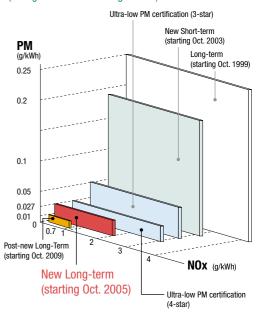
From 2005 through February 2006, we released medium-duty trucks, large-size touring coaches and heavy-duty trucks. Some heavy-duty truck models have received certification by the Ministry of Land, Infrastructure and Transport (MLIT) as "certified lowemission vehicles", compatible with the New Long-Term Emission Regulations. In addition, we also have plans to release a series of light-duty trucks.

In regard to buses, we began releasing smalland medium-size buses equipped with DPR in July 2004 and also began marketing large-size hybrid buses that comply with the New Long-Term Emission Regulations for NOx in January 2005.

The decision has been made to introduce new ("Post-Long-Term") regulations even more demanding than the New Long-term Emission Regulations beginning in 2009 and we are already promoting vigorous active efforts to achieve compliance.

The MLIT has moreover set up a low-emission vehicle certification program as well as "a tax incentive program for vehicles in compliance with the New Long-Term Emission Regulations" to encourage the development and dissemination of diesel vehicles, which have low emissions, and we are making efforts to receive top ranking certifications under these programs.

#### Transitions in diesel emission regulations (timing of enactment of regulations)



# **Engines Compatible with the New Long-Term Emission Regulations**

"The New Long-Term Emission Regulations of 2005" are the most stringent in the world\*. Hino Motors has achieved this lofty target through the further evolution of the clean diesel system DPR, which received 4-star certification under the New Short-Term Emission Regulations of 2003-04. Its strong point is that it is an extension of existing reliable technology (the items marked with @ in the photo to the right indicate the major changes in the 4-star certified vehicle). It is the same as the 4-star vehicle both in fuel and use. It is a system that can be used constantly with a sense of security.

Olmproved Cool EGR performance Olmproved clean combustion

OImproved engine electronic control (precision control of cool EGR)

\* As of July 2006

N DIESEI

Heavy-duty diesel engine E13C compatible with the New Long-term Emission Regulations

Medium-duty model J08E engine compatible with the New Long-term Emission Regulations



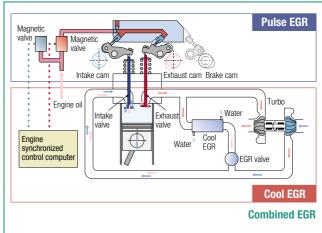
### **Combined EGR System**

The EGR (Emission Gas Recirculation) system recirculates emission gases back to the combustion chamber, thus promoting a reduction in NOx by reducing the oxygen density of the air in the combustion chamber and lowering the combustion temperature through more moderate combustion.

The world's first combined EGR system adopted for the Hino Profia combines the electronic-control pulse EGR, a further development of Hino's unique pulse EGR for heavy load conditions, and highly effective cool EGR that cools exhaust emissions and recirculates them to the cylinders when under light load conditions. Realizing the

recirculation of exhaust emissions in the heavy load zone without any decline in fuel efficiency while restraining increased heat discharges to the cooling water makes it possible to realize both a broad reduction in NOx emissions and good fuel economy.

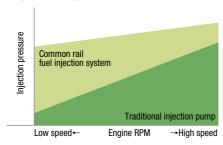
# Combined EGR System



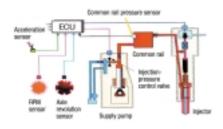
# Common-Rail Fuel Injection System

The common rail fuel injection system used in Hino Motors vehicles, the first time ever, stores fuel under high pressure in the common rail and injects it into the cylinders through electronically controlled injectors. The newly developed common rail system furthermore uses a multi-injection system, enabling optimal control of fuel injection timing, volume, pressure and other aspects without regard to engine RPM. High-pressure fuel injection is possible over the entire range from the low to high RPM zone, realizing clean combustion.

#### Comparison of Injection Pressure



#### System conceptualization



### **DPR Cleaner**

The use of the world's first full-scale ceramic filter that filters total engine emissions through micropores in a high heat-resistant ceramic wall makes it possible to trap 95% of the soot contained in emission gases. The finely tuned electronic control of the newly developed common rail fuel injection system removes and incinerates trapped soot while in operation. It demonstrates stable PM reduction performance, even with low emission temperature, in urban and other driving conditions involving congestion, which have been thought to pose difficulties.



The common rail system brings dramatic progress in technology to the diesel engine and has made it possible to freely control fuel injection. Conversely, we have confronted many difficulties in collaborative control and other complex large-scale control involving EGR, turbos and other exhaust emission devices and vehicle safety devices, Pro Shift and other aspects.

We are aiming to achieve the world's cleanest emission gases with expertise and pride in the world's first application of the common-rail system and are promoting efforts for its further development.

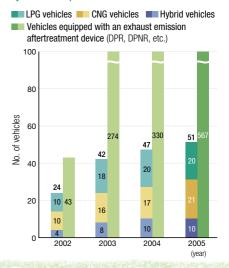
# Response to the low-emission vehicle certification programs of local governments

Hino Motors is proactively responding to the Low-Emission Vehicle Designation System promoted by Tokyo, Chiba, Saitama, and Kanagawa Prefectures and the cities of Yokohama, Kawasaki, Chiba and Saitama as well as LEV-7 Low-Emission Vehicle Certification System promoted by Osaka, Kyoto, and Hyogo Prefectures as well as the cities of Osaka, Kyoto and Kobe.

Centered in vehicles that operate in urban areas, fifty-one models of trucks, route buses and other vehicles, including LPG, CNG and hybrid vehicles, have acquired certification. In addition, 567 models of vehicles equipped with DPR and DPNR systems have also received certification.

In addition, restrictions on the operation of diesel vehicles (operation prohibited in four prefectures) that do not satisfy PM emission standards prescribed by four prefectural governments went into effect in October 2003. Meanwhile, the restrictions were further intensified (in Tokyo and Saitama Prefectures) in April 2006. Hino Motors has received certification in eight prefectures and cities for the "PM Trap" as a device for reducing PM emissions of existing vehicles (with KC) sold after the regulation of 1994, thereby complying with the restrictions.

#### System conceptualization



# For greater fuel economy performance

#### **VISION**

#### We try hard to improve fuel economy by making full use of state-of-the-art technologies.

We make every effort to improve fuel economy through product development. We contribute to reducing CO<sub>2</sub> emissions using our advanced technologies based on long years of research activities, including development of the turbo intercoolers and 12-gear Pro Shift.

#### **Key Words**

# E13C Straight 6cylinder Diesel Engine

New generation diesel engine developed through full-scale efforts

# E13C model engine, a new generation diesel engine

This is a new-generation turbo intercooler model engine developed by Hino through all-out efforts to set the trend in environmental performance, economy and power drive performance. The engine produces overwhelmingly high torque even at low idle levels with maximum torque at 1,100 rpm.

Ensuring extremely smooth startups, the engine has low fuel consumption due to powerful running performance demonstrating high torque. Combined with the Pro Shift semiautomatic transmission, the new engine operates in the optimum combustion "green zone" at all times, offering outstanding fuel economy.

#### Hino Eco-Run

The Hino Eco-Run, a thrifty fuel consumption drive support system built into the E13C engine, allows the engine computer to adjust the current acceleration just like an excellent fuel-conscious driver at the touch of a switch, achieving exemplary fuel savings.

The system responds to acceleration by the driver in different driving conditions, including empty, loaded and climbing hills. While doing so, the system controls acceleration in the fuel-efficient mode, facilitating smooth operation with little undulation and suppressing fuel consumption.

# Idle control system in more vehicle models

To respond to the spread of anti-idling ordinances implemented by Metropolitan Tokyo and other municipal governments, Hino equips more vehicle models with the idle control system that automatically brings the engine to a stop as soon as the shift lever is placed in the neutral position. The system is incorporated into route buses, touring coaches and trucks that operate often on urban streets. The idle control system helps improve fuel economy while reducing exhaust emissions and noise.

# 12-gear Pro Shift

We have newly developed the 12-gear Pro Shift semiautomatic transmission. The new transmission is Japan's first\* full-synchro type capable of fully extracting the great fuel economy performance of the E13C engine.

The semiautomatic transmission covers a wide gear range from start to high-speed cruising. Precise, smooth automatic gearshift operations are at all times achieved in the "green zone" of good fuel economy,

making easy driving compatible with fuel saving. This helps reduce driver fatigue and achieve improved power drive performance.





12-gear Pro Shift

# Aerodynamic characteristics

Low fuel consumption vehicles also require technological developments in areas other than the engine. R&D activities are being carried out for low fuel consumption vehicles by improving body styling for reduced air resistance, mounting aero bumpers and wind deflectors, lightening vehicle weight and optimizing the power line series.

The Hino Profia incorporates a cab that represents "the Grand Aerotech Design", born out of the pursuit of the world's highest level of aerodynamic performance.



Cab styling for the improved fuel economy



E13C engine

Heavy-duty Trucks (Domestic) Group Power Train Systems Group, CE, Product Planning Div. (Originally associated with Vehicle Research

Dept., Technical Research Center Keiichi Kitazawa

Vehicle Research Dept., Technical Research Center Hirofumi Yasui

Is there any way to provide a means for preventing "undulation driving" (i.e., the habit of driving while needlessly alternating between acceleration and deceleration) and sudden acceleration in the vehicle? Both undulation driving and sudden acceleration lead to poor fuel economy. We addressed eco-run development for the new Profia with the aim of providing a system that would make drivers feel as if they were accompanied by an experienced fuel-conscious driving instructor, whether driving an automatic or manual transmission vehicle. We created logic, checked it through simulation, carried out actual vehicle tests and, then, analyzed the data obtained. We repeated these processes over and over again and we even had to sit behind the wheel in the middle of the night to perform test drives. As a result, we succeeded in developing a completely new Hino original eco-run system that stabilizes vehicle acceleration with fuel efficiency but without sacrificing accelerator response. We would be very happy if the customer is happy about the actual fuel consumption improved by the eco-run system.

# Developing hybrid vehicles and clean energy vehicles

#### **VISION**

Hino Motors strives to develop hybrid vehicles and clean energy vehicles toward the ultimate goal of harmonious coexistence with the environment.

We are positively committed to developing hybrid vehicles and clean energy vehicles (LPG and CNG vehicles) with low environmental impact. Some of these vehicles comply with the Law on Promoting Green Purchasing.

#### **Key Words**

### Seven models

Vehicle models that comply with the Law on Promoting Green Purchasing (as of March 2006)

# **Hybrid vehicles**

Hino Motors has succeeded in mass-producing diesel-electric hybrid buses for the first time in the world. With its lineup of small- to medium-duty trucks, Hino leads the hybrid vehicle market for commercial use.

The large-sized route hybrid bus currently on the market has passed the new Long-Term Emission Regulations for both NOx and PM, with the resultant gain of about 15 percent in fuel. Both the light- and medium-duty trucks have passed the level for the new Short-Term Emission Regulations of less 50 percent and achieved compliance with the new Long-Term Emission Regulations for NOx. They also have passed the level of the new Short-Term Emission Regulations of less 85 percent for PM. In fuel economy, the medium-duty trucks have improved by about 20 percent and the light-duty trucks by about 30 percent. As illustrated by these examples, Hino's high level of environmental performance contributes to improved fuel economy and reduced CO<sub>2</sub> emissions.

Hino also enjoys an outstandingly large share of hybrid vehicles. For fiscal 2005, registration for Hino-manufactured hybrid vehicles totaled 34 large-sized route buses, 3 large-sized touring coaches, 161 medium-duty trucks, and 1,022 light-duty trucks.

In the future, we will make efforts to develop low pollution, low fuel consumption hybrid commercial vehicles that meet social needs.



Light-duty truck Hino Dutro Hybrid

# LPG (liquid petroleum gas) and CNG (compressed natural gas) vehicles

LPG and CNG vehicles boast of their superior characteristics, including low emissions of NOx, PM, and soot emission, as well as low noise. Hino Motors offers a lineup of LPG and CNG models for Dutro light-duty trucks, and CNG models for Ranger medium-duty trucks and large-to-medium-sized route buses.

Since gas is used, LPG and CNG vehicles require a large tank capacity, which presents the problem of insufficient cruising range. We will therefore strive in the future to expand our series lineup of vehicles with particular emphasis on intracity operating vehicles, while considering the building and expansion of the infrastructure such as fuel supply.

#### **Typical activities**

#### **CNG Eco-Station**

Hino Motors has established a CNG fueling facility, called Hino Motors Eco-Station, next to the site for the headquarters and Hino plant. The facility provides CNG fueling service for drivers of other makes as well as Hino drivers. By doing so, the station contributes to the spread of CNG vehicles in the western part of Tokyo, which has fewer CNG fueling stations than central Tokyo.

# Vehicle models complying with Law on Promoting Green Purchasing

In response to the Law on Promoting Green Purchasing implemented in April 2001, we have been developing vehicles that comply with the law. As of March 2006, the following seven vehicle models comply with the law.

- Light-duty truck Hino Dutro CNG, five models
- Medium-duty truck Hino Ranger CNG, eight models

# Research on other fuel types for the next generation

Hino Motors is actively researching possible types of next-generation fuel as well. We are researching an engine fueled by DME, dimethyl ether, which emits virtually no soot or PM.

We have also joined forces with Toyota Motor Corporation to develop a large-sized bus equipped with a fuel-cell hybrid system that uses high-pressure hydrogen fuel. Eight of these buses were run between Nagakute and Seto, venues of the Expo 2005 Aichi Japan, which was launched in March 2005. The buses were driven over a total distance of 124,500 km and favorably welcomed by more than one million passengers.

Starting in July 2006, the buses will be operated on a route going to the Chubu International Airport.



Fuel cell hybrid bus

- Medium-sized route bus HINO RAINBOW II CNG, one model
- Light-duty truck Hino Dutro Hybrid, four models
- Medium-duty truck Hino Ranger Hybrid, three models
- Large-sized touring coaches Hino Selega R Hybrid, one model
- Large-sized route bus Hino Blue Ribbon City Hybrid, two models

Visit our website for detailed vehicle specifications.

http://www.hino.co.jp/

# Promotion of the 3Rs and Reducing Environmental Impact

#### **VISION**

We are promoting eco-friendly design including the effective use of resources. reduced environmental impact and so forth within the context of the 3Rs.

In order to be able to effectively use limited resources and minimize the environmental impact, Hino Motors is pursuing the 3Rs\*1 and reductions in the use of substances that burden the environment over the entire spectrum from design to disposal.

#### \*1 Reduce, reuse and recycle

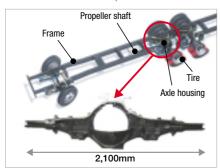
# Design taking the 3Rs into consideration

have formulated design quidelines encompassing recyclability, reductions and constraints on the generation of waste and the reuse of products and parts at the design stage and are reflecting them in the development of environmentally outstanding parts.

#### Reductions in product resources

We are the first in the world to achieve success in the application of simultaneous casting-joining technology to reinforced components, enabling us to replace cast steel for heavy-duty truck axle housings with FCD (ductile cast iron).

As a result, we have reduced component weight from 152kg to 140kg while also reducing CO<sub>2</sub> emissions in the manufacturing process by 25% and are also realizing many other effects such as reductions in raw material use and reduced environmental impact.



FCD axle housing using simultaneous casting-joining technology

#### Use of readily recyclable materials

In order to improve recyclability, we are switching from thermosetting resin and rubber material to readily recyclable thermoplastic resin material and are using easily recyclable TSOP (Toyota Super Olefin Polymer) as door trim and instrument panel base material

# **Key Words**

0%

Target for the use of substances that burden the environment (lead, mercury, cadmium, hexavalent chromium) by 2007

# Expanded application of recycled material

Besides using recycled felt for the felt backing of floor mats, we are using recycled urethane for part of the seat cushions and recycled bumper material for battery covers, thereby expanding our use of recycled materials.

#### Improved disassembly

We have improved the disassembly of the Hino Profia heavy-duty truck by reducing the number of metal clips used to retain wire harnesses and switching to resin material, thus promoting improvements in the recoverability of copper resources.

### Initiatives to reduce substances that burden the environment

Hino Motors is promoting initiatives for reducing substances that burden the environment by setting our own independent targets. Beginning in 2006, we will terminate the use of four environmental impact substances (lead, mercury, cadmium and hexavalent chromium) in domestically produced vehicles (with the exception of some excluded parts) with the aim of complete elimination in 2007.

In addition to the replacement of the copper radiator and heater core with aluminum material in the Hino Profia heavy-duty truck, we have eliminated lead from battery harness terminals and have achieved a level of one-third or less of the 1996 level. Meanwhile, the use of mercury has been completely eliminated with the exception of navigation system LCD displays, interior fluorescent lighting and some other uses where required from the perspective of traffic safety. The use of cadmium and hexavalent chromium will also be completely terminated, respectively, by January 2007 and January 2008.

## Initiatives of the reduction of interior VOCs\*2

We are making efforts to reduce interior VOCs by setting independent targets. While receiving the cooperation of parts and materials producers, we are promoting product development constraining the use of VOCs.

\*2 Volatile organic compounds generated in the vehicle

# Promotion of the recycling and proper disposal of track cargo bodies

Commercial vehicles are characterized by having track cargo bodies. Roughly speaking, trucks are disassembled into three major components, cabs, chassis and bodies (trailers, vans, boxes, cranes, etc.) and the most difficult of these to recycle are the bodies and trailers, which generate large volumes of waste. Most flat bodies, vans and other types of bodies and trailers are not subject to the End-of-Life Vehicle Recycling Law because the time and place of disassembly differ from those of chassis with cabs, because of the high ratio of recycling and reuse and for other reasons and we are therefore pursuing independent recycling efforts.

Moreover, in order to ensure that industrywide initiatives are effective, the Japan Automobile Manufacturers Association, Inc. and Japan Auto Body Industries Association, Inc. formulated the Voluntary Commercial Vehicle Body Recycling Initiative in 2002.



Proper Treatment of Bodies and Trailers Handout introducing precautions when processing truck bodies and trailers (prepared jointly by the Japan Automobile Manufacturers Association and Japan Auto Body Industries Association)

### The End-of-Life Vehicle Recycling Law

The Law Concerning Recycling Measures of End-of-Life Vehicles ("ELVs") (End-of-Life Vehicle Recycling Law) was enacted in July 2002 and went fully into effect in January 2005. The law obligates the appropriate sharing of roles centered in the vehicle producers with the aim of promoting the recycling and proper treatment of ELV.

In the case of ELVs produced by Hino, chlorofluorocarbons (CFCs) generated by the vehicle, airbags and shredder residue are extracted and recycled.

# Response to the Vehicle Recycling Law

We are actively promoting proper treatment and recycling in compliance with the End-of-Life Vehicle Recycling Law. Since first going into effect on January 1, 2005, it has been managed smoothly without any system-related or other problems.

Hino Motor's performance in FY2005 included 6,359 units of shredder residue (volume accepted: 2,181.5 tons), 116 airbags and 1,931 units of CFCs (938.1kg). In addition, the recycling ratio was 48% for shredder residue, (statutory standard: 30+%) and 94% for airbags (85+%), both achieving the statutory standard.

#### Calculation of recycling fees

The expenses required for the recycling of the three items (CFCs, airbags and shredder residue) was charged to the customer as recycling fees.

In addition, a fee inquiry desk has been set up linking the Japan Automobile Recycling Promotion Center and Hino Motors, enabling a rapid response at any time to inquiries from customers regarding fees.

#### Treatment of the three items

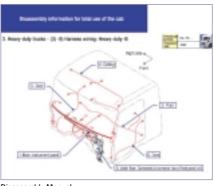
The producers pick up and recycle the three items prescribed by the law. CFC and airbag treatment operations are entrusted to the Japan Auto Recycling Partnership (a limited liability intermediary corporation), the pickup point shared by vehicle producers. The company is promoting the effective low-cost recycling of shredder residue with the cooperation of the ASR Operation Division of Toyotsu Recycle Corporation, set up jointly with Toyota, Daihatsu, Honda and other automakers.

In addition, total recycling treatment is also

being promoted through the use of ELVs as steel material without shredding and without generating any shredder residue.



Disassembly test



Disassembly Manual

#### Preparation of an airbag treatment manual

We have prepared a manual for proper airbag treatment that explains how to collect airbags the collection and actuate them on the vehicle to ensure the proper and effective recycling of airbags.

We prepared the 2006 edition of the manual in FY2005 with the addition of information regarding the new model Hino Selega equipped with new airbags.

# Reduction of air conditioner refrigerant

We are moving ahead with reductions in the use of the air conditioner refrigerant HFC134a, which has an impact on global warming. We have achieved broad reductions, including a 42% reduction for the Hino Profia heavy-duty truck and a 44% reduction for the Hino Ranger medium-duty truck compared to our own independently set target of 20% of the 1995 level.

# Efforts to improve the recycling rate

We have achieved a recyclable rate of more than 90% of our independent target for chassis with cabs and will continue to strive for further improvements in the recycling rate.

# Reuse through Hino U-Truck Ltd.

In order to promote the reuse and recycling of used vehicles and parts, we established Hino U-Truck Ltd. in 2003 through a merger of our wholly owned subsidiary Hino Chuhan Ltd. and CRC Ltd. We will continue to pursue group-wide efforts to realize improvements in product reuse and recycling.



# Reduction of the Environmental Impact in Everyday Life

#### **VISION**

A major issue is not only reducing the environmental impact imposed by the vehicles themselves but also achieving reductions at the production stage.

Hino Motors advocates specific reduction targets in its voluntary plan and is seeking to reduce the environmental impact in production activities through repeated meticulous measures. In FY2005, it achieved the targets for CO2 emissions, water use and waste.

#### **Kev Words**

#### 19% reduction

FY2005 CO2 and basic unit (compared to FY2000)

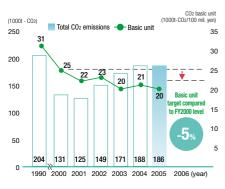
# **Prevention of Global Warming**

We set out to achieve reduced energy consumption with the aim of realizing the goal of reducing CO<sub>2</sub> emissions against sales by 5% compared to the FY2000 level by the end of FY2005

In FY2005, we sought to reduce energy consumption by upgrading existing boilers and integrating and eliminating production lines prompted by the termination of the Hilux production and succeeded in achieving a reduction of 19.3% compared to the level of FY2000.

Prompted by the amendment of the Municipal Environment Protection Ordinance of Tokyo in March 2005 and the launch of the new Tokyo Metropolitan Government (TMG) Plan to Counter Global Warming system in April 2005, the relevant plants, the Hino and Hamura Plants. The results of the TMG assessment were an A+ rating for both the Hino and Hamura Plants.

#### Transitions in total CO<sub>2</sub> emissions and basic unit

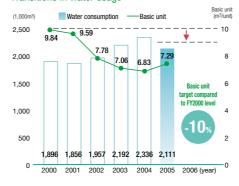


# **Conservation of Water** Resources

We are promoting water conservation initiatives with the aim of reducing water usage per product by 10% compared to the FY2000 level by FY2005.

In FY2005, we introduced various measures including patrols to prevent water leaks, elimination of overflows and the filtered reuse of discharged water and succeeded in reducing water use per product by 25.9% compared to the FY2000 level.

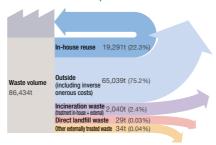
#### Transitions in water usage



#### Reduction of Waste

Hino Motors has set reduction targets in its voluntary plan for the reduction of waste and is taking steps to achieve those targets including resource recycling activities and resource conservation activities to eliminate wasteful practices

#### Details of Waste Disposal in FY 2005



#### Direct landfill waste

We achieved zero direct landfill waste\*1 at all plants in FY2000. We are currently seeking to realize further reductions in direct landfill waste.

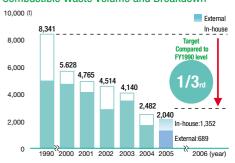
\*1 Zero direct landfill waste: less than 5% compared to the level of FY1995

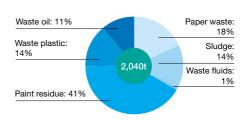
#### Incineration waste

We set the goal of reducing incineration waste generated at our plants to one-third (33%) of the FY1990 level by FY2005 and have been promoting activities for that purpose. We guickly succeeded in realizing this target in FY2004.

In FY2005, we sought to achieve a further reduction through the dehydration of paint residue and other measures and, in addition, we are also promoting thermal recycling by returning thermal energy to the plants by generating steam using our own incinerators.

#### Combustible Waste Volume and Breakdown





# **Management and Reduction of Chemical Substances**

#### **VISION**

We are striving to reduce environmental impact substances and prevent environmental contamination through the development and management of a chemical substance assessment system.

We ascertain the components of chemical substances used in plants and determine advisability of use. We are working to realize appropriate management and reduce total volumes.

#### **Kev Words**

#### 44% reduction

Discharge of substances subject to the PRTR Law\*2 in FY2005 (compared to the FY1998 level)

# Management of chemical substances

Many chemicals are used in Hino Motors production activities. We at Hino Motors comply with the PRTR Law and, when procuring new subsidiary materials, we have a system for confirming the content of chemical substances in advance and assessing those substances in order to prevent the use of highly toxic substances that impact the environment, safety and hygiene.

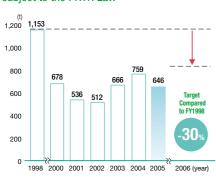
#### Reduction of substances subject to the PRTR Law

In FY2005, we used 21 different chemical substances that are subject to the PRTR Law in Hino Motors production operations with a total volume of some 2,600 tons, of which 24% was discharged into the atmosphere and water.

Discharges in FY2005 amounted to 646 tons, which represents a reduction of 44% compared to FY1998 (the first year of tabulation), greatly exceeding our own voluntary plan reduction target of 30%.

\*2 PRTR (Pollutant Release and Transfer Register) Law, formal name: Law Concerning Reporting, etc., of Release of Specific Chemical Substances to the Environment and Promotion of the Improvement of Their Management

# Transitions in the discharge of substances subject to the PRTR Law



# Reduction of environmental impact substances

Although the Air Pollution Control Law has been amended and VOC (volatile organic compound) regulations have been enacted (April 2006), we at Hino Motors have established a voluntary plan and began making efforts even earlier to reduce VOCs. We furthermore make sure that dioxins generated in our incinerators satisfy regulation levels through rigorous incinerator management.

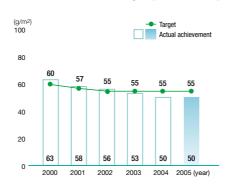
#### Reduction of VOCs

We have set independent targets at the Hamura Plant for VOCs discharged in the body painting process and are promoting reduction activities.

In FY2005, we installed bubbling cleaning equipment with the aim of reducing the cleaning thinner used when changing colors and have carried out trials and adjustments. We will confirm the actual reduction achieved and will also proceed with development on other production lines.

We have notified the authorities of installation of eight existing paint booths in response to the VOC regulations that went into effect in April 2006.

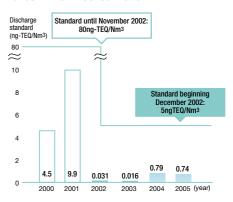
#### Transitions in VOC discharges (Hamura Plant)



#### · Reduction of dioxins

An incinerator has been put into operation at the Hino Motors Hamura Clean Center for the treatment of waste generated at each of the operation bases. It is in compliance with all of the regulations, which were fortified through the amendment of legislation in December 2002. As a result of the implementation of management for the total incineration of waste, thoroughgoing development and management of facility functions and reinforcement of waste sorting and reexamination of the appropriate incineration volume and other measures, the dioxin concentration in gas discharges has dropped to less than 0.74ng-TEQ/Nm³, thereby fully satisfying the new standard value of 5ng-TEQ/Nm³.

#### Trends in Dioxin Concentration



#### Storage of PCBs (polychlorinated biphenyls)

Transformers, condensers and other electrical devices containing PCBs are being properly managed and stored.

Electrical devices containing PCBs that are no longer in use and are in storage amounted to 225\*3 units as of the end of FY2005. The PCB-containing device treatment office in Tokyo went into operation in October 2005 and advance registration has therefore been implemented for the treatment of these devises.

<sup>\*3</sup> Hino Plant: 142 units (reference: 25 units of PCB-containing electrical devices are currently in use at the Hino Plant)
Hamura Plant: 83 units (reference: there are no PCB-containing electrical devices currently in use at the Hamura Plant)

# **Consideration for the Local Community**

#### VISION

Hino Motors is making efforts to ease environmental risk taking the environmental impact on the local community into account.

We are promoting exhaustive steps for the prevention of soil contamination. We are promoting efforts for the prevention of noise, vibration, offensive odors and so forth taking the environment in the vicinity of each plant into account.

#### **Key Words**

#### Prevention

Our approach to initiatives for environmental risk

# Initiatives for the prevention of soil contamination

Hino Motors is moving forward with activities to prevent soil contamination caused by oil leaks from underground pits and storage tanks in order to reduce environmental risk.

We have completed inspections of all 140 underground pits and storage tanks installed at Hino Motors facilities, identified areas of risk and are promoting successive upgrades.

Specific measures include the prevention of oil leaks from facilities and, for underground pits, thoroughgoing double leak prevention through the application of resin coating, thereby promoting measures for the prevention of soil contamination.

### Initiatives for soil and subsurface water

have confirmed the existence of trichloroethylene that exceeds environmental standards at one location on the premises of the company headquarters and the Hino Plant and, since 1997, have taken steps to purify the soil and subsurface water.

Giving the highest priority to the prevention of outflows from the plant premises, we installed barrier wells and periodically measure the subsurface water quality.

We report these measurement results, purification measures and other information to the local government and provide appropriate explanations to the residents of the community.

#### Trichloroethylene measurement values in FY2005

Environmental standard: 0.03 (unit: mg/L)

Plants and offices	Water quality level
Headquarters & Hino Plant	0.002~0.31
Hamura Plant	0.002~0.028 <sup>*1</sup>
Nitta Plant	Not detected

- \* The level varies since there are multiple measurement points at each plant.
- \* Measurement date (headquarters & Hino Plant: February 2006, Hamura Plant: September 2005)

# Noise and vibration prevention

We have devised various contrivances to lessen the impact on the areas surrounding our plants such as introduction of equipment with low noise and vibration properties and the installation of vibration-proof foundations and sound-proof walls. We are also seeking to realize positive effects through layout design in order to cope with the noise and vibration generated by presses, compressors, ventilating fans and other equipment.

When installing new equipment, we carry out advance verification of environmental impact, simulation-based projections and so forth and institute appropriate measures.

#### Odor reduction

We are making every effort to reduce odors through the introduction of deodorization equipment using the chemical cleaning method for the forging process and the catalytic combustion method for the painting process, both of which generate offensive odors.

# Column

### **Promotion of eco-factory activities**

Eco-factory activities were initiated in 2005 with the aim of unfailingly incorporating environmental measures from the planning stage based on the cornerstones of 100% legal compliance, prevention and improvements in environmental performance as environmental response items applicable to new projects both in Japan and abroad.

At the time of trial runs and actual operation, in-house audits are conducted on-site to make sure that environmental equipment has been installed as planned with the aim of eliminating the need for follow-up environmental responses.



<sup>\*1</sup> Due to inflows from outside of the plant premises

# **Initiatives in Distribution**

#### **VISION**

We are striving to reduce CO<sub>2</sub> emissions generated through distribution and realize the effective utilization of resources by enhancing efficiency through reduced packing and packaging materials.

We are promoting reductions in  $CO_2$  emissions and in the use of packing and packaging materials by promoting improvements in the procurement and inter-plant transport of parts, reduction and improvements in completed vehicle transport and distribution of parts to production plants overseas.

#### **Key Words**

# Enhanced distribution efficiency

Reductions in CO<sub>2</sub> emissions and reductions in the use of packing and packaging materials

# **Domestic Distribution System**



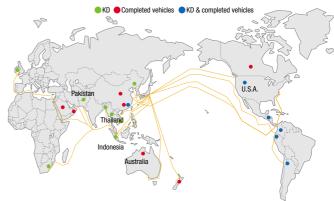
In addition, there is also procurement and distribution for the delivery of parts from suppliers to the various plants

#### Overview of the distribution system



\*2 KD: Knockdown

## Distribution system overseas



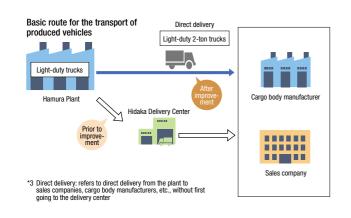
# Improvements in domestic distribution

In domestic distribution, we have realized improvements primarily in the filling rate and loading rate, curtailment of transport routes and modal shift in the means of transport.

# ng rate, curtailment of transport routes and modal shift in the means of transport. returnable cases and boxes and reexamination of packing and packaging methods.

#### **Direct Delivery\*3**

**Example of improvement** 

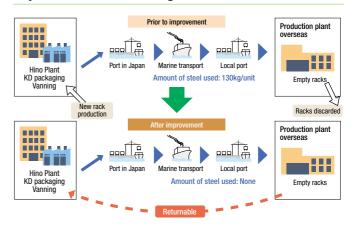


# Example of improvement

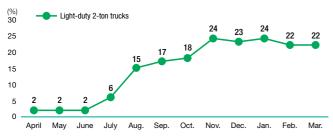
Improvements in distribution overseas

### Improvement in the management of returnable racks

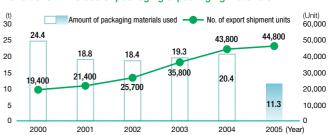
In distribution overseas, we have realized improvements primarily in the filling rate and loading rate,



### Direct delivery rate in FY2005



### Transitions in the use of packaging & packaging materials



# **TOPICS**

# **Initiatives of Affiliated Companies**

#### **VISION**

We are promoting the conservation of the global environment and making efforts to reduce the environmental impact through the production of casting material.

Since first established in 1953, Fukushima Steel Works Co., Ltd., a group unit, has been producing high-quality steel castings giving life to its own unique technology. Amidst a heightened awareness of the environment, it is taking active steps to recycle waste sand, which can be considered the mission of the casting industry.

Note: Fukushima Steel Works Co,. Ltd.: Employees: 547 (as of April 2006); besides the headquarters and Azuma Plant in Fukushima Prefecture, it also has a plant in Sagamihara, Kanagawa Prefecture.



Executive & Azuma Plant Manager Fukushima Steel Works Co., Ltd. Yoshimatsu Funayama

### **Aiming for Zero Waste**

Castings are formed by channeling molten metal into casting molds made of hard-packed sand. Many castings are used in automobiles including the engine block and underbody parts and components. In the casting production process, it is necessary to break down the sand mold in order to extract completed parts, which generates large volumes of waste sand. The cores that are used when producing parts with internal voids are particularly difficult to recycle because of their special processing.

Here is how Mr. Yoshimatsu Funayama,

Azuma plant manager, describes initiatives at the plant for the realization of zero emissions.

"Since the sand contains no chemically harmful substances, we previously disposed the waste sand at a special disposal site. We began wondering if there were some way to reuse the sand rather than simply discarding it and launched a sand project in 2005. At present, we have reorganized the sand project as a general waste reduction project and, for the future, we are engaged in activities with the goal of eliminating all waste sent out of the plant."



and molds on the molding line



Mold sand recycling plant

# **Construction of a special reprocessing plant**

The focus of the project was the appropriate sorting of waste sand generated by each of the processes. Though it is possible to easily reuse the sand that is used in the outer frame, which is the master pattern, the sand used for cores has a silica component and is therefore hard in texture and cannot be reused intact. It is therefore important, first of all, to separate waste sand of differing composition. A new special-purpose treatment plant was furthermore constructed for the sand used in cores. The plant with its own staff of experts recovers and treats some 100 tons of waste sand every month.

Seven different types of sand materials alone are currently being sorted at the plant and, aside from sand, there are more than eighty other different types of materials that are also being sorted at the plant. They are also making painstaking efforts to use even the steel beverage

cans consumed by the employees as material for castings.

Furthermore, Fukushima Steel Works is aiming for the goal of zero emissions, looking ahead to the possibility of introducing an exhaustive recycling orientation in all of the casting production processes.



Recyclable sand is sorted further by composition

# Column

#### **Development of recycled roadbed bricks using cast iron waste**

Fukushima Steel Works initiatives for the environment do not stop at sand. It has also succeeded in the production of recycled roadbed bricks through the reuse of steel slag generated in the steel melting

process. The slag, which accounts for about 5% of the total volume of molten steel, is generated when a silicon or calcium component is fed into electric furnaces to absorb sulfur and other impurities in cast iron and, though referred to simply as "slag," a product used to further enhance product quality, it is reborn as recycled brick, a new product.



# **Initiatives as a Global Enterprise**

#### **VISION**

#### **Group-wide efforts for the conservation of the global** environment as a global environmental frontrunner.

The Hino Motors has been involved in overseas operations for about half a century starting with exports. Currently, the various operational bases around the world are promoting activities that are strongly rooted in the local community.

#### **Key Words**

#### 140 countries

The number of countries where Hino trucks and buses are being marketed

### Global Environmental **Production Conference**

In September 2005, executives in charge of the environment and about forty local staff members involved in the local environment at six Hino Motors production-related subsidiaries gathered at the Hino Motors headquarters for a three-day Global Environmental Production Conference. The representatives of the various companies

introduced examples of initiatives that they were pursuing and the achievements and problems were shared by the group. They also conducted waste water treatment tests and participated in observation tours of plants.

In addition, at a Overseas Manufacturing Companies Meeting at the HMMT headquarters\*1 in March 2006, the representatives announced environmental action plans for realization by 2010 and reaffirmed a strong group-wide commitment to the achievement of the Hino Group 2010 Environmental Action Plan without fail.



Global Production Environment Conference

#### \*1 HMMT: Hino Motors Manufacturing (Thailand) Ltd.

# **TOPICS**

#### Initiatives at HMMI\*2

HMMI was established in Jakarta, Indonesia, and started engine assembly operations in 1982. A new plant was constructed in 2003 in the lush green KBI Industrial Park ("KBI" means "town in beautiful hills" in the local language) located about 80km east of Jakarta. There, integrated production encompassing everything from engines to vehicles was launched, fulfilling the company's long-cherished dream and enabling it to supply customers with better products.

The major production items include mediumduty trucks, bus chassis and other vehicles, axles and other unit components and 2-ton vehicle engines for Toyota Indonesia. In 2005, the plant acquired ISO14001 certification and all of the employees, working hand in hand, are actively promoting environmental conservation activities with the aim of protecting the beautiful natural surroundings.

#### Mottainai activities

(Development of returnable parts racks made from waste material) About 70% of the parts used at the plant are imported from Japan and, upon reexamining waste within the plant from the perspective of "mottainai," which has been adopted by Hino Motors as a key environmental concept, it was found that about 150 tons of racks in which the parts are packaged were being discarded every month.

The plant thus conducted an examination jointly with a local rack manufacturer into the possibility of reusing the throw-away racks to construct new returnable racks and they then succeeded in recycling about 2,000 of the disposable racks. Besides holding down production costs by using waste material, they are very satisfied that some 150 tons of waste a month have been reduced essentially to zero.

#### Jakarta Clean Campaign

Jakarta, which lags behind in the development of

electric trains and other elements of the transportation infrastructure, suffers from chronic traffic congestion and emission gas pollution. The government of Indonesia has therefore ventured into the introduction of various measures such as setting up exclusive bus lanes. Hino clean engine buses are also playing a role in this campaign. Hino buses currently comprise 63 of the 102 buses that use the bus lanes.

#### Social action in the community

There are many children in Indonesia who are unable to purchase school supplies. We periodically visit local elementary schools and, donate notebooks, pencils and other items that they need. Using such opportunities, we also hope to be able to tell the children, even if just a little, about the importance of environmental conservation.

We at HMMI hope to become a company that is able to contribute to the local community through such activities.

\*2 HMMI: Hino Motors Manufacturing Indonesia



A Hino bus operating in a bus lane in Jakarta



Vehicle assembly line There are about 400 employees.



Recycled returnable racks (left) Racks from Japan with packaged parts (right) Racks to be returned to Japan

# **Initiatives in Marketing Activities**

#### VISION

### We are also actively involved in environmental management in marketing activities.

The service sector also accounts for a large share of the Hino Motors business Hino Motors is proactively promoting initiatives for alleviating environmental impact in marketing activities and is developing various activities.

#### **Key Words**

### 179 offices

The number of eco-management dealers certified in FY2005

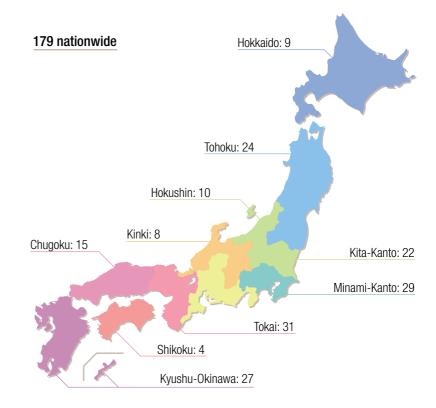
### Eco-management dealer certification

In the vehicle lifecycle, it is the usage and service sectors that have direct connections to the customer. Hino Motors collaborates with all 41 sales companies that have service shops and launched the Sales Company Environmental Management System in FY2002.

The system certifies those sales companies (offices) as Eco-Management Dealer once they are judged, after an audit of the conditions of compliance, to be implementing 100% of the initiatives of the Sales Company Environmental Guidelines.

IN FY2005, 38 companies and 179 offices received certification as "Eco-Management Dealer".

### Certified Eco-Management Dealers Geographical map of certified offices



Note: The number of certified offices in each region



Eco-Management Dealer certification ceremony



Scene of an audit



Scene of an audit



Certificate

# **TOPICS**



Tokyo Hino Motor, Ltd.

Shusaku Maruyama

### A service base located in the heart of the city That is precisely the reason for the difficulties and the significance

Speaking emphatically, Mr.Shusaku Maruyama, president of Tokyo Hino Motor Ltd., explained that "Tokyo Hino Motor is engaged in developing sixteen offices in the Tokyo and Saitama Prefecture area. Promoting major reforms in response to the demands of society — that's the mission we fulfill in providing service for trucks and buses."

There has been a notable tendency in recent years for vehicle inspections and other operations to be concentrated on weekends. Once the workload becomes heavy, however, work often continues on late into the night, which more than likely disturbs the local residents. Tokyo Hino Motor has therefore introduced various measures taking the local residents into consideration.

"It is precisely because we provide service in a large urban area, where there are many trucks and buses in operation, that a centralized location in the heart of the city is convenient. However, places that are convenient for the customer often tend to be in areas with high population density."

# "The acquisition of ISO14001 certification is no more than just one result." Pursuit of a more advanced social mission based on the concept that unceasing and sustained efforts are the most important element in environmental measures

Cooperating with the local community as a good corporate citizen and assuring a richly abundant and hospitable environment for future generations.

The following phrase can be found within the environmental policies of Tokyo Hino Motors: "easy to say but hard to do." What activities are being developed in order to realize this principle? From what we heard, we were given the impression of the existence of a strong conviction that "acquiring ISO certification is nothing more than just the first step."

# Knowledge and ingenuity demonstrated in the ISO14001-certified office

The Edogawa office, located near Loop Route 7, acquired ISO14001 certification along with the home office.

"Though there were only a few homes in the area when we first opened the office, we are now surrounded by row after row of high-rise condominiums."

Mr. Kiyoshi Yoshida, office manager and his staff are focusing efforts especially on reducing noise and preventing the dispersal of solvents and other substances used in painting operations.

"We previously carried out vehicle inspections with teams of two mechanics but, by changing this to teams of four and having them take responsibility for one wheel each, we have accelerated the process and realized improvements in safety as well."

This team makeup has reduced work time to onethird or one-fourth. Increasing the number of vehicles that we can handle during the same time span has also resulted in a considerable reduction in late night work.

In addition, a special pit soundproofed by double shutters has also been installed for speedometer tests and other procedures that generate a high level of noise.

# Aiming to provide true customer service while gaining the understanding of the customer

"Environmental measures are not something that our company can achieve on its own. The understanding of the customer is also essential."

For example, we accept jobs until 5:00pm. Improvements are being promoted in many respects such as gaining the understanding of the customer since painting is done only in the special painting booth, it will take time when there are many painting jobs to be completed.

"Both the headquarters and the Edogawa office have acquired ISO14001 certification and I would like to see this to expand out laterally throughout the company. But that alone would not be enough to make me satisfied."

There is some things that President Maruyama tells the employees every time he has the opportunity. One is: "acquiring certification is no more than a result. The important thing is sustained effort." Another is: "becoming a company that fulfills its social mission leads in turn to the provision of service to the customer."

These are profound words given the fact that environmental measures do not necessarily fulfill the requirements of customers in the short term.



Environmental policies of Tokyo Hino Motor, Ltd.



Vehicle inspection by a team of 4 mechanics

Special pit soundproofed by double shutters





There are also limits in painting jobs

# Hino Motor's

# **Initiatives in the Social Field**

# **Our Philosophy**

Our work is built upon a relationship of trust with our customers, business partners, employees and many other stakeholders. It is the goal of Hino Motors to become a trusted company.





We aim to continue earning the trust of all of our stakeholders as a good corporate citizen through contributions to the sustained development of the earth and society with the production of trucks and buses as our starting point.

Hino Motors trucks and buses are currently active in more than 140 countries. We are committed to making contributions as a good corporate citizen with the aim of ensuring the sustained development of the earth and society based on the creation of trucks and buses that transport people and goods. Our goal is to continue earning the trust of various stakeholders throughout the world as the Hino Motors corporate group and to continue on as the company that you hope us to be.

I would like now to introduce a number of initiatives that focus on the development of a relationship of trust with our stakeholders.

- Creation of a trustworthy corporate culture within
- · Creation of a workplace that is safe and is a rewarding place to work
- Customer-oriented initiatives
- Interaction with society
- Contributions to the local community

We will continue to mobilize the strength of the corporate group and pay heed to the views of our various stakeholders around the world while making more effort and striving to achieve the aim of an unquestioned response to your trust.

# **Relationships with Society**

Interaction with the local community and society

We aim to become a company that is trusted by the local community and society through various activities conducive to the society.

→ See pp. 39-42 for detailed information



# Creation of a Trustworthy Corporate Culture in Society

#### **VISION**

We will seek to promote compliance with the intention of maintaining and enhancing trust in Hino vehicles by society.

We at Hino Motors feel that serious efforts for compliance are linked to the achievement of our social responsibility as a corporate citizen.

**Kev Words** 

# Aspiration, Stance & Execution

Hino Motors Employee Code of Conduct formulated in June 2002

# **Hino Motors Compliance Activities**

At Hino Motors, we comply not only with laws and ordinances but also, in a broader sense, with corporate ethics, social mores and other standards and intend to rapidly respond to the expectations of our customers, shareholders, business partners, employees and other stakeholders. In other words, the goal of our compliance activities is to "maintain and improve confidence and trust in Hino Motors within society including our customers."

### Formulation of the Hino Motors Code of Ethics and Distribution of the Guidebook

Hino Motors formulated the Hino Motors Code of Ethics in January 2003 to serve as a guide for the constant and sincere conduct of our employees toward society, the company and themselves. The Hino Motors Code of Ethics points out the daily conduct and mental attitude expected of Hino Motors employees as members of society and company people.

In addition to various training that is provided in order to enhance the understanding of the employees regarding compliance, a Compliance Guidebook featuring 100 case examples has been also distributed among the employees.

#### **Hino Motors** Code of Ethics



#### Content of the Hino Motors Code of Ethics

Standards for conduct in relationships with the company Creation of a cheerful workplace and the management of property and

#### Standards for conduct in company activities

Safety and hygiene activities, development activities, environmental conservation activities, safety improvement activities, procurement activities, production & distribution activities, etc.

#### Standards for conduct in relationships with society

Public information activities, social action activities, relationships with shareholders, relationships with the government and government administration.

#### Standards for personal conduct

Conduct in violation of laws, anti-social behavior, etc.

# Compliance and Risk Management Committee

Meetings of the Compliance and Risk Management Committee are convened regularly with participation by company directors and standing statutory auditors as members with the aim of actively promoting compliance activities spearheaded by the top The committee deliberates and decides issues and responses regarding compliance and risk management.

### **Hino Compliance Consulting** Desk

Hino Motors has put in place five "compliance sensors" and has distributed pocket cards urging self-checks to identify compliance-related problems.

In addition, if employees become aware of problems with compliance, the Hino Compliance Consulting Desk set up by the company serves as a means for consulting about compliance to complement the workplace with calls received by an outside attorney and efforts are being made to fully familiarize the employees throughout the company. The employees are able to directly report and consult regarding problems via direct hookup telephone or special email address. Confidentiality is strictly maintained at the consulting desk and those who call are not subjected to any detrimental treatment whatsoever.

Compliance Guidebook

#### Compliance structure (overview)



#### Compliance sensors

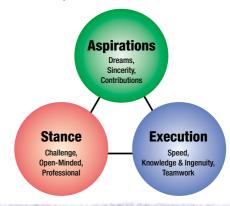
#### Is the judgment you just made:

- (1) In violation of laws or ordinances, the Hino Motors Code of Ethics or in-house rules?
- (2) Contrary to company commonsense or customer expectations?
- (3) In conformance with the company philosophy and policies?
- (4) Proper based on your conscience?
- (5) A source of pride to your family and friends?

# **Hino Spirit** (Employee Code of Conduct)

The Hino Spirit, which clarifies the values and behavior standards on which the employees are to place importance in the performance of their work duties, was formulated in June 2002. Many people in the workplace participated in the formulation and they offered their views freely. The essence of the Hino Spirit is incorporated in mental realignment activities and employee education and it is also introduced to new employees at company orientations.

#### The Hino Spirit



# Creation of a Safe and Rewarding Workplace

### **VISION**

We aim to create a workplace where the employees can work with a sense of security and where growth can actually be sensed.

We aim to create a workplace where individual employees can enthusiastically demonstrate the skills they have to the fullest by ensuring safe and healthy working conditions for all employees.

### **Kev Words**

# Motivation & **Upward Spiral**

Aspiring to realize a workplace where the employees can grow with enthusiasm

# Mutual labor-management trust and responsibility

As advocated in the 60 Hino Labor-Management Renewal Declaration drafted on the occasion of the company's 60th anniversary, "mutual labormanagement trust and responsibility" is the fundamental groundwork within the context of interaction with the employees.

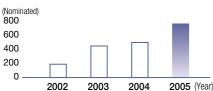
### Supporting diverse approaches to work

As a part of the company's measures to realize a better work-life balance for the employees and support next-generation training and education, the company has established various leave programs in accordance with the stage of life from childcare to long-term nursing. A childcare leave can be acquired that extends to the end of March following the child's second birthday and it has been used by about 460 employees since first instituted

# **Employee Award Program**

The former award program was expanded with the aim of improving employee motivation. Besides the General Manager's Award, Company Officer's Award and President's Award, a Speed Award, Challenge Award and other awards in line with the Hino Spirit have been established incorporating tournament-like elements. Open Mind Award, in particular, was set up for the purpose of promoting contributions to the local community and society by employees.

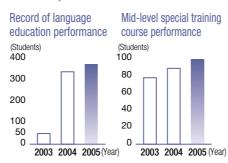
### Number of award winners



### **Human Resources Training and** Education

The workplace (OJT) and the Human Resources Division (OFF-JT) are cooperating in efforts for employee training and education to enable each individual employee to fully demonstrate their skills and capabilities.

For administrative and technical personnel, the core of the curriculum consists of the approach to work for mid-level employees and management skills for core positions. For skilled personnel, training and education are provided to those personnel who serve as the core of manufacturing based on the two pivots of positionspecific training and professional skill training. Furthermore, we also started introducing a skill grade certification system in FY2006



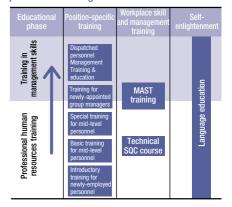
## Occupational Safety and Health

Hino Motors is promoting the sharing of awareness among all employees, clearly revealed both in the company and externally, that it positions the development of a workplace that is safe and healthy and easy to work as the best way to realize both human dignity and corporate growth and is making efforts for the management of safety and hygiene advocating the concept that "safety has priority over all business activities" based on the Hino Motors Fundamental Doctrine for Safety and Hygiene

In addition, introducing the Occupational Safety and Hygiene Management System (OSHMS) based on that doctrine, we are actively developing activities for safety and hygiene in order to prevent work-related casualties.



### Diagram of administrative and technical personnel training



### **Mental Healthcare**

The company has been promoting establishment of a mental healthcare system since 1998. Periodic study sessions are held for management and auditors to enhance the awareness of mental healthcare while conducting questionnaire surveys of all employees and reflecting the results in the improvement of communication.

Moreover, the enhancement of the mental healthcare system is being promoted by establishing a desk for periodic individual consulting with outside specialist counselors, introduction of outside telephone consulting desks and so forth.

# Record of mental healthcare study sessions in

Venue	No. of participants
Hino Plant	71
Hamura Plant	25
Nitta Plant	21
Tamachi Office	9
Company-wide total	126

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# **Initiatives for the Customer**

This column introduces activities in Japan. Activities are different in each country.

### **VISION**

We propose a varied support menu to ensure the long-term use of our trucks and buses by our customers with a sense of security.

Hino Motors proposes not only quality assurance but also a diverse menu of service and support to ensure the long-term use of our trucks and buses by customers with a sense of security.

### **Kev Words**

### 162 offices

The number of offices in our service network expanding nationwide capable of a response 24 hours a day, 365 days a year (as of March 2006)

# Responding 24 hours a day, 365 days a year

Hino Motors has built up a nationwide service network of 162 offices capable of responding 24 hours a day, 365 days a year, as a way of providing service to our customers, who work day and night, in the event of a vehicle accident or other emergency. We mobilize our service cars Dr. Dutro installed with the most up-to-date equipment and service engineers to carry out repair operations safely and rapidly.

## Improvements in maintenance quality

We are striving to improve maintenance quality to support the safety and security of the customer. Besides the maintaining good order on the premises, we make exhaustive efforts for the maintenance of facilities and shared tools with the aim of developing a safe and rapid maintenance system.

In addition, we are also striving to enhance work efficiency through the development of maintenance task procedures and the promotion of work systems based on a structure of two mechanics per axle (4-person teams).

# Approaches and systems to improve customer satisfaction

We are committed at Hino Motors to the creation of relationships of trust with the customer by focusing individually on the development of products and the provision of services that will bring satisfaction to the customer from the perspective of a "customer-first"

### **Description of Customer Support**

We reflect information received through the customer consulting desk and at the sales companies in future company activities.

We propose the optimal vehicle that meets the needs of the customer.

We offer the optimal maintenance menu to ensure the long-term use of our vehicles by customers with a sense of security and also economically.

We have developed a system hand in hand with our sales companies that enables a response 24 hours a day, 365 days a year, in the event of vehicle breakdown.

We provide support in response to the intensifying environmental and safety concerns.

## **Customer Service**

With the customer consulting desk, we have developed a system to provide responds to various inquiries and complaints from the customer and reflect them in future company activities.

Some 5,500 inquiries were received at the consulting desk in FY2005. In a breakdown, these included about 400 specific complaints and suggestions, which were conveyed internally and to sales companies and also incorporated in issues for the prevention of recurrence and product development.

### After-Sales Service Menu

We have developed an after-sales service program including inspections, maintenance and so forth and offer proposals to the customer. In substance, service consists of the provision of preventive maintenance through maintenance leases and annual maintenance contracts. addition, we respond to customer demands by offering a fully- appointed menu containing some forty different services.

The initiatives of the Customer Technical Center are introduced on pp.13-14.



"KAIZEN" Consulting Div Rikio Suzuki

We are focusing attention on ways of improving the quality of the maintenance of the customer's valuable vehicles. We are committed to providing high-quality error-free maintenance service by improving the precision and efficiency of vehicle maintenance tasks through maintaining orderly service shop conditions, elimination of wasteful tasks, preparation of maintenance procedural manuals and other means. The responsibility is heavy given the fact that maintenance quality is directly linked to the safe operation of the customer's vehicles.



Quality Assurance Div. Tuyoshi Katsuta

We never forget that we are providing vehicles of the highest quality capable of satisfying the customer. To that end, I think that it is important for all of the mechanics involved until the vehicle is delivered to the customer to understand their individual roles and perform their tasks with dedication. In order to assure that everyone fully understands their roles and responsibilities, we will continue to carry out our tasks with conviction.



Technical Service Div. Takashi Nara

We are in an age when the customer has a heightened awareness of the environment and selects vehicles based on their environmental performance. Present-day vehicles use complex environmental control to improve environmental performance and there is an increasingly strong need for high quality maintenance.

Our goal is to improve the service level of the sales companies through failure diagnosis equipment plans and other service measures in order to enable the customer to use Hino vehicles with a sense of security and operate them safely and in an eco-friendly manner.

# Support of the customer for the acquisition of Green Business Certification

We at Hino Motors, are taking positive steps to support customers in acquiring Green Business Certification, are aiming to acquire certification or are promoting improvements in employee morals.

Furthermore, we also help customers through the sales companies with the Fuel-Efficient Driving Workshops and Daily Inspection Workshops that are required in order to acquire certification.

# Initiatives for quality assurance

At Hino Motors, we think of quality as providing good products and good services that give the customer a genuine sensation of security and satisfaction.

To achieve that, we are moving ahead with quality assurance activities, setting quality management targets in all processes covering everything from suppliers and plant to distribution, van and trailer manufacturers, sales companies and our customers.

# **Typical activities**

### **Service Master Course**

We have been holding the Service Master Course, a training course, since October 2003, with the aim of training the service staff of sales companies, which serve as the core for the provision of prompt, uniform and high quality service anywhere at all times that will lead to a further improvement in customer satisfaction.

Persons qualified to receive the training, that is, experienced service engineers who have been with the company for five to ten years, are solicited from sales companies nationwide and take a screening test. The third session, which started in October 2005, is currently in progress.

### Example of the Service Master Course Curriculum

		Course content
Service engineer related	Mechanical field	Gaining an understanding of new skills and new mechanisms, learning maintenance skills, van and trailer maintenance, failure diagnosis, vehicle engineering
Service engineer related	Electrical field	Actual electric and electronic control system maintenance and failure diagnosis
Sales engineer related		Understanding of products, vans and trailers, and applicable laws and regulations
Service management related		Service shop management; reception desk response; improvement activities; environment, safety and hygiene; and observation tours of plants in Japan and overseas

### Activities for rapid quality improvements based on customer information

Hino Motors has developed a system for collecting the views of our customers received through sales companies and the customer consulting desk. We compile and analyze the collected information and, if required, conduct on-site surveys and the recovery and analysis of defective parts and promote improvements through the relevant divisions. In addition, if product defects are recognized and it is judged necessary to take steps in the market, we promptly adopt the required measures including notifications, announcements, remedies and nocharge repair.

	FY 2003	FY 2004	FY 2005	
Recalls	9	18	8	
Remedies	1	0	1	
Service campaigns	7	12	9	

We are furthermore providing a maintenance menu and promoting proactive public information activities to assure the long-time use of our products.

We moreover implement effective inspection and maintenance operations and educational activities for the prevention of accidents while also promoting product improvements to extend the inspection interval.

SANARANAN KANTAN KANTAN SANARAN NA MANA

# **Interaction with Society**

This column introduces activities in Japan. Activities are different in each country.

### **VISION**

We are promoting diverse and wide-ranging social action activities as a company active on the world stage.

Hino Motors participates in events through exhibits and sponsorship as an environmental and safety frontrunner. We also provide support not only for activities in the environmental field but also in cultural field.

### **Key Words**

### Clean & Green

Aiming to realize a lush green earth

### **Hino Green Fund**

### Supporting the spirit of watching over and fostering activities

The Hino Green Fund (HGF) was established in 1991 through a financial contribution by Hino Motors with "harmony with the social environment" as the fundamental principle. It is promoting hands-on experience and providing assistance for various environmental greening, nature conservation and other projects based on the motto of "thinking globally and acting locally."

### Annual events in FY2005

April: Tama River and Asagawa River Clean-Up Campaign

May: Spring Forest Gathering (Mt. Takao) June: General Meetings (Board of Trustees,

August: Assistance Recipient Screening Committee Meeting #1

Board of councilors)

September: Assistance Recipient Screening Committee Meeting #2

October: Autumn Forest Gathering (Mt. Takao) November: Grant presentation ceremony & announcement of activities

January: Environmental lecture

### Environmental Minister's Award

On June 6, 2005, the HGF received the 2005 Environmental Minister's Award for Distinguished Service in Environmental Conservation. The award is presented every year by the Minister of the Environment to organizations or others for long years of achievements in notable activities for environmental conservation and beautification. We feel that the award this time represents a commendation of the HGF's sustained efforts over the past fourteen years for the conservation of the natural environment.

The HGF will continue contributing to environmental conservation and the realization of a richly inspiring society through various events and other activities targeting forestation and conservation activities, surveys and research and enlightenment activities relating to the natural environment.



Scene of the award ceremony

# Gathering for Forest Interaction

Autumn forest gathering (Mt. Takao)

Spring forest gathering (Mt. Takao)

The Gathering for Forest Interaction was held at the HGF

Forest (Hachioji City) on May 28, 2005, with the

cooperation of the Forestry Agency. The 53

participants that day played nature games to find artificial flowers and other artificial objects hidden in the

forest, engaged in vegetation observation, cut logs

and other hands-on experiences. They learned

about the importance of protecting nature through

cheerful communion with nature.

A charcoal burning experience was held on October 29, 2005, with the cooperation of the Forestry Agency at Hikagezawa Campground #2 in the Mt. Takao Natural Recreational Forest in Hachioji. Besides actual experience in the series of tasks involved in the charcoal production process (filling the charcoal kiln with wood materials, lighting the kiln, charcoal removal and kiln closure) on that day, the participants also created charcoal flowers, roasted sweet potatoes and engaged in vegetation observation.



Charcoal burning experience at Mt. Takago



**Executive Director** Toshihiko Saito

The fund provides grants for forestation, conservation of the natural environment and other activities reflecting the motto of "thinking globally, acting locally." We are contributing to the conservation of the global environment by supporting a diversity of activities by various people. Though these are sure but steady initiatives, we hope that some day activities sponsored by the fund will burst into full bloom.

### Grant presentation ceremony and announcement of activities

The Hino Green Fund grant presentation ceremony and announcement of activities were held at the Hino Motors 21st Century Center on November 26, 2006. In the ceremony, grants were presented for twelve projects carefully selected from among 39 project applicants. In the announcement of activities, announcements energized with enthusiasm were given by the previous year's recipients.



Grant presentation ceremony and announcement of

### Environmental lecture

The environmental lecture was held at the large hall of Hino Motors headquarters on January 20, 2006. The lecture included personal accounts of experiences about the effects of natural disasters caused by global warming and the current state of forest deterioration before an enthusiastic audience of eighty.



Scene at the lecture

### **Exhibits in events**

Hino Motors exhibits products at various events in order to promote greater recognition of the Hino brand.

When exhibiting products, the company introduces the most up-to-date low-pollution and safety technology befitting of Hino, the environmental and safety frontrunner, as well as vehicles incorporating that technology. From a barrier-free perspective, it also exhibits low-pollution buses for urban operations.

### Record of major event participation in 2005

- Barrier-Free 2005 (Osaka, April 2005)
- Automotive Engineering Exposition (Yokohama, June 2006)
- Eco-Car World (Yokohama, June 2005)
- Truck Show (Tokyo, October 2005)



Barrier-Free 2005 (small-size low-floor bus)



Truck Show (exhibit of technology)



Truck Show (safety technology simulator)

### Participation in Eco-Car World 2005

Hino Motors participated in Eco-Car World 2005, sponsored by the Ministry of the Environment, the City of Yokohama and other organizations. This event is held every year in June for the purpose of popularizing low-pollution vehicles. The venue in the Red Brick Warehouse of Yokohama Minato-Mirai 21 is visited by many people.

We exhibited hybrid buses, low-pollution trucks and other products.



Scene at the event

## **Cooperation with internships**

Hino Motors actively accepts internships that provide opportunities for students to gain experience in society as a corporate citizen.

There are both short (about 1 month during the summer) and year-round (about 6 months) Internships. Participants included thirteen from one school in FY2001, two from one school in FY2002, 25 from eight schools in FY2003, seventeen from ten schools in FY2004 and 26 from eleven schools in FY2005.

ENDESKREVENDING FARSBERGEN NAMEN

# **Contributions to Local Communities**

This column introduces activities in Japan. Activities are different in each country.

### **VISION**

### We are endeavoring to contribute to the creation of a society offering safe and secure livelihood.

Hino Motors is promoting the creation of relationships of trust with the local residents through various local action activities. We are also fully aware of the role that we should perform as a corporate citizen and are striving to be able to respond to the demands of society.

### **Key Words**

# Talking together & walking together

The groundwork for company activities is the local community itself

### Interaction with the local residents

In April every year, the Hino and Hamura Plants and the Hidaka Vehicle Stock Yard open their doors to the public and hold cherry blossom festivals. In April 2006, more than 10,000 visitors each came to the Hino and Hamura plants. A broad range of activities is provided including plant observation tours and test rides in Paris-Dakar Rally trucks as well as various attractions, refreshment booths staffed by employee volunteers and lots more. The Nitta Plant holds the Nitta Plant Autumn Festival every autumn. The cheerful activity of cooking a large potful of 500 servings of miso soup with pork and vegetables is a great source of pleasure.

Important opportunities to strengthen the bonds of trust with the local residents will continue in the future



Hino Plant Cherry Blossom Festival



Hamura Plant Cherry Blossom Festival



Hidaka Delivery Center Cherry Blossom

### **Typical activities**

### **Nitta Plant activities to** contribute to the community

Besides information exchanges with local residents once every other month, the Nitta Plant also actively participates in local beautification activities three times a year with the aim of promoting social harmony with the local community.

At the information exchanges, the plant implements activities rooted in the community such as active participation and cooperation with the Nitta area Sports Festival and the Hayakawa Summer Festival in Ota city in response to requests from the Hayakawa area, which is confronting advancing aging



Beautification activities are held twice a year together with the local community and once a year as an independent

# Informal gatherings with the public

Informal gatherings with the local residents are held at the Hino and Hamura plants once or twice a year and information exchanges are held at the Nitta plant once every two months as a way of enhancing the understanding of production activities at Hino Motors.

Community representatives and city council members participate in the informal gatherings and, besides exchanges of information, advance explanations are given by Hino Motors of the conditions of plant operations and large-scale construction projects together with reports of the conditions of its response to the neighborhood.



Informal gathering with the local residents

### Plant observation tours

Hino Motors accepts social studies observation tours by elementary and junior high school students, company visits by prospective employees and plant observation tours by local residents to enhance their understanding of our business activities.

Besides gaining an understanding of the Hino Motors dedication to quality and environmental initiatives through the vehicle production process, contributions to the community are promoted by arousing interest in manufacturing and the ecofriendly orientation.

Record of observation tours (FY2005) Hino Plant: about 22,000 Hamura Plant: about 5,998 Nitta Plant: about 1,000



Nitta Plant Autumn Festiva



Hino Technical Skills Academy
Sadayoshi
Maeda

Graduates of the Academy join Hino Motors as human resources who will be in charge in the future of manufacturing. During their three years as students, they learn that Hino Motors' business activities lack substance without the understanding and cooperation of the local community. We struggle day and night to nurture excellent members of society instilled with the corporate citizen mentality who can take an approach to development hand in hand with the community, so that the students are able to hear words of praise from the local residents.

# Acceptance of trainees from Malaysia

A request was received from the International Training Division of the Energy Conservation Center of Japan (ECCJ) to provide training on the theme of "energy management and the promotion of energy conservation for improvements in vehicle production" as part of the Acceptance of Training Participants Program by that organization and a training session was held on January 17, 2006, at the Hino headquarters.

The twenty-one trainees from Malaysia and five personnel from the ECCJ who participated were given an understanding of the Hino Motors company and products and were given the opportunity to learn about energy conservation through case examples. In the plant observation tour, they observed production line maintenance and AGV as well as the compressor facility through the introduction of case examples, both of which aroused a vigorous exchange of questions and answers.



Training participants

### **Typical activities**

### **Participation in regional events**

The Hino and Hamura plants exhibit products in booths in the Industry Fairs every year in November sponsored by local governments in their respective areas. Hino Motors exhibits Paris-Dakar Rally trucks, Profia heavy-duty trucks, Dutro Hybrid light-duty trucks and other products and holds a large lottery and a charity all-you-can-carry potato sale.



(Photo above and below) Hino City Industry Fair



### **Typical activities**

### Local action activities by the students of the Hino Technical High School

All of the students of the Hino Technical High School, which is managed by Hino Motors, involve themselves in local cleaning activities twice a year as a part of their environmental education. In August, they clear out undergrowth and clean the pond in the mixed forest owned by the Wild Bird Society of Japan located in Hino city's Minamidaira Kyuryo Park and, in December, they clean the streets from Hino Station to the school and gymnasium.

In March, as integrated study, first- year students have actual hands-on learning experiences for four days at municipal elderly welfare facilities, childcare centers and other facilities as a part of their contributions to the region.



# Column

### **Hino City Car Design Workshop**

The car design workshop, which was launched in 2004, with the aim of enhancing the understanding and interest of the children who will bear the future destiny of Japan in vehicles and design and also manufacturing was held for the third time this year. In 2006, it was held on February 4, 18 and 25, through the joint efforts of Hino City Board of Education and the Society of Automotive Engineers of Japan at the company's Design Center.

Thirteen fifth- and sixth-grade elementary school children participated in the workshop, enjoying experience in car design and manufacturing under the guidance of Hino designers and modelers.

Various comments were received from the participants, such as "in the future, I would like to have a job doing car designs and producing cars."





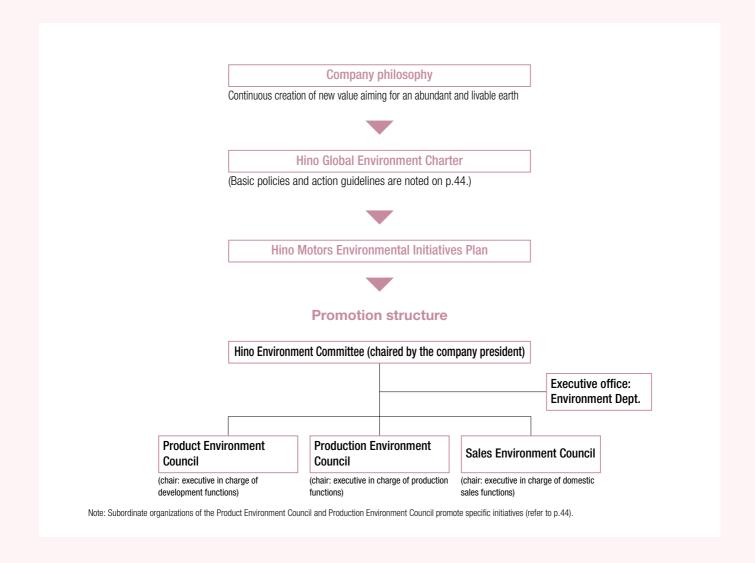
# **Environmental Conservation Promotion Organization**

Hino Motors has formulated the Hino Global Environment Charter and the Hino Motors Environmental Initiatives Plan (voluntary plan) positioning environmental conservation activities as an issue of critical importance. In addition, the company is promoting comprehensive environmental initiatives through the establishment of the Hino Environment Committee.

### **Environmental Conservation Promotion Structure**

Hino Motors formulated the Hino Global Environment Charter and the Hino Motors Environmental Initiatives Plan, a specific plan of action, with the aim of comprehensively promoting environmental conservation activities. The Hino Environment Committee, chaired by the company president, was set up at the same time as an overarching company-wide organization for the promotion of environmental conservation activities,

Furthermore, the Product Environment Council, Production Environment Council and Sales Environment Council were established as subordinate organizations and specific initiatives are being promoted based on the Hino Motors Environmental Initiatives Plan. In addition, the 2010 Environmental Initiatives Plan (4th voluntary plan) was formulated in FY2005 for realization by 2010.



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# Hino Global Environment Charter

### — Hino Motors' Environmental Policies —

### **Basic policy**

### 1. Continued comprehensive promotion of global environmental conservation

We will supply better products to various people in countries around the world as a leader among diesel vehicle manufacturers and continue to contribute to enriching society while striving for the sustained development of humanity and the earth. To this end, we will give due attention to environmental impact and the prevention of contamination in all facets of our business activities as we pave the way for ongoing and sustained improvements.

### 2. Specific and effective promotion of global environmental conservation

We will comply with laws, regulations, ordinances and other requirements relevant to us through the development and implementation of environmental management systems and continuously implement activities to establish, assess and reexamine environmental objectives and goals.

### **Action guidelines**

# 1. Promoting the minimization of environmental burden in all business activities and throughout the entire vehicle lifecycle

We will continue to provide society with products that demonstrate top-level environmental performance while unceasingly developing technology for minimizing the environmental burden in the production and distribution processes. In addition, we will develop and implement environmental management systems that cover all processes in the vehicle lifecycle.

### 2. Promoting closer bonds in partnerships with affiliated companies

It is essential for us to gain the cooperation of many people in order to be able to carry on with our business operations. While mutually collaborating with partners in vehicle production both in Japan and abroad, we will further expand this extensive circle of environmental conservation activities.

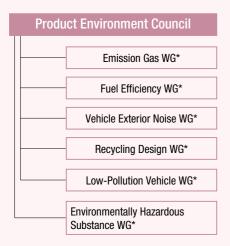
### 3. Further efforts for information disclosure, education and enlightenment

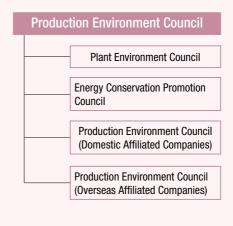
We will promote activities to impart a more precise understanding of our initiatives to as many people as possible. We will also continue to refine our own environmental sensitivity.

### 4. Active participation in social initiatives as a corporate citizen

Providing better products is not all that we can do for society. We will actively participate in social initiatives as a corporate citizen and as a company with roots in the community.

### ■Subordinate organizations of the Product Environment Council and Production Environment Council





<sup>\*</sup> WG: Working group

# **FY2005 Targets and Activity Results**

In promoting initiatives, we formulated the Hino Motors Environmental Initiatives Plan, which sets forth specific targets in the management, development and production and distribution fields, and are promoting initiatives reflecting the assessment of target achievement levels for each year in the next year's plan.

Management Field		
Item	Initiative	Target level in the Hino Motors Environmental Initiatives Plan
Promotion of comprehensive environmental	Expansion in the scope of application and enhancement of the	Acquisition of ISO14001 certification by all of the company's
management	environmental management system: Acquisition of ISO14001	domestic bases (functions)
	certification by all of the company's domestic bases (functions)	
Enhancement of activities with affiliated	Expansion in the acquisition of IS014001 certification	Acquisition of IS014001 certification by 23 affiliated companies in Japan
companies (suppliers) both in Japan and overseas		(one or more offices per company)
		Acquisition of ISO14001 certification by major production facilities
		overseas (5 locations)
	Promotion of green procurement & purchasing	Expansion in green procurement of parts
		Expansion in green procurement of office supplies and equipment
Enhancement of activities with sales companies	Promotion of the development of environmental	Issuance of Sales Company Environmental Guidelines
	management systems at sales companies	Total elimination of incinerators at all domestic sales offices

Initiative	Target level in the Hino Motors Environmental Initiatives Plan	
Securing top level in various vehicle classes in all countries and regions through	Securing top level in various vehicle classes through the	
the development of elemental technology and vehicle control technology	development of elemental technology and vehicle control technology	
Dramatic clean development of diesel engines	Early introduction of clean diesel engines	
Active development and expanded sales of clean	Further improvements in hybrid systems for further dissemination	
energy vehicles	and expansion of vehicles equipped with hybrid systems	
	Continued initiatives for CNG fueling stations and other clean energy vehicles	
Promotion of recycling design conducive to a 95%	Focus on vehicles with recycling design	
recycling rate by 2015		
Management of chemical substances and promotion	Expansion of substances subject to management and reinforcement	
of initiatives aiming for the top level of performance	under the follow-up structure	
Reduction in environmentally hazardous substances	<ul> <li>Reduced use of lead to 1/4th or less of the 1996 level</li> </ul>	
• Improvements in product strength through a further	Introduction of vehicles compatible with upcoming noise regulations	
reduction in vehicle noise		
Reduction in vehicle refrigerants	Reduced use of refrigerants by 10% of the 1995 level	
	Securing top level in various vehicle classes in all countries and regions through the development of elemental technology and vehicle control technology  Dramatic clean development of diesel engines  Active development and expanded sales of clean energy vehicles  Promotion of recycling design conducive to a 95% recycling rate by 2015  Management of chemical substances and promotion of initiatives aiming for the top level of performance  Reduction in environmentally hazardous substances  Improvements in product strength through a further reduction in vehicle noise	

Production and Distribution Fields		
Item	Initiative	Target level in the Hino Motors Environmental Initiatives Plan
Promotion of global warming countermeasures	Active promotion of CO <sub>2</sub> reduction measures	Reduction in CO <sub>2</sub> emissions per sales volume by 5% of the 2000
		level by the end of FY2005 (23.8t-CO <sub>2</sub> /100 million yen)
		(Reduction of CO <sub>2</sub> emissions by 10% of the 1990 level by 2010)
Management and reduction of environmentally	Reduction in substances subject to the PRTR Law	Reduction in substances subject to the PRTR Law by 30% of the 1998 level
hazardous substances		<ul> <li>VOC emissions to bodyline average 55g/m²</li> </ul>
Waste reduction and resource conservation	Promotion of the reduction in waste aiming for zero	Achievement of zero landfill waste at all plants
	emissions and resource conservation activities	Reduction in incinerated waste by 1/3rd of the 1990 level
Conservation of water resources	Reduction in water usage	Reduction in water usage per unit by 10% of the 2000 level
		(8.86m³/unit)
Promotion of distribution rationalization	Active promotion of distribution rationalization to realize	Reduction in packing and packaging material use by 20% of the
	reductions in the volume of packing and packaging material use	2000 level

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FY2005 - Targets	FY2005 – Results
• FY2002, acquisition of IS014001 certification by all offices	• FY2002, acquisition of IS014001 certification by all offices completed
FY2003, acquisition of certification by all companies	<ul> <li>Acquisition of certification by all companies completed during FY2004</li> </ul>
Support for the certification acquisition plan in accordance with the	Hino Motors Manufacturing USA, Inc.: Kickoff March 2006
operations of production bases	
(Sept. 2002, issuance of procurement guidelines)	• Environmental Guidelines issued to all domestic suppliers in Sept. 2002
(Completed in FY2001 and efforts continuing)	Continuation of 100% green procurement
Issuance of guidelines	Achievement of all guideline items at 38 companies and 179 offices

FY2005 – Targets	FY2005 – Results		
Promotion of compliance with fuel economy standards	Achievement of fuel economy standards for some light-duty trucks and		
	buses		
Completion of compliance with New Long-Term Emission Regulations (2005)	Compliance with New Long-Term Emission Regulations (2005) completed		
Development of hybrid vehicles in compliance with New Long-Term	Completed to develope hybrid vehicles of light duty trucks		
Emission Regulations			
Expansion in CNG vehicle models	Market release of medium-duty trucks in compliance with New Long-Term Emission Regulations		
Promotion of recyclability assessment	Preparation of a checklist for major body parts and components		
Promotion of environmentally hazardous substance management and follow-up	Promotion of reduction activities by the Environmentally Hazardous		
	Substance Working Group		
Reduced use of lead to 1/4th of the 1996 level	Achieved		
Noise reduction taking the market environment into account	Promotion of noise reduction in all vehicles through New Long-Term		
	Emission Regulations		
• 20% reduction in the basic unit reduction target (compared to 1995)	Achieved		

FY2005 - Targets	FY2005 – Results		
Reduction by 5% of the 2000 level	Reduced by 19% of the 2000 level		
Reduction by 30% of the 1998 level (800 tons or less)	Reduced by 35% of the 1998 level		
Average 55g/m²	Bodyline average 50g/m²		
(Completed in FY2001 and efforts continuing)	Zero landfill waste maintained		
Reduction by 1/3rd or less of the 1990 level (2,770 tons)	Reduced by 75% of the 1990 level (2,100 tons; target: 2,770 tons/year)		
Reduction by 10% of the 2000 level	Reduced by 25% of the 2000 level		
Reduction by 20% of the 2000 level	Reduced by 53% of the 2000 level		

# The Hino Motors 2010 Environmental Initiatives Plan

# Aiming to be an environmental forerunner in commercial vehicles

Hino Motors formulated the 2010 Environmental Initiatives Plan (4th voluntary plan) as an action plan for environmental initiatives from FY2006 through FY2010.

This action plan promotes the five items to the right as targets based on three cornerstones, namely, reduction in environmental burden in all company activities, further promotion of environment conservation activities by the Hino Group and symbiosis with society, taking foreseeable future environmental problems and social trends into account as a commercial vehicle manufacturer that supports the groundwork of the livelihood of society.

			Initiatives	Specific implementation items, targets, etc.					
	Management	1	Further reduction in CO₂ in global business activities	• Formulation of medium- to long-tem global CO <sub>2</sub> reduction scenarios and their effective promotion					
ing	Development & Design	2	Aiming for reduced emission gases and improved fuel efficiency of the world's foremost leader in diesel vehicle production	Achievement of world-class top-level fuel economy standards through ultra-low fuel consumption diesel engine minimization of aerodynamic resistance and optimal vehicle control     Further improvement in the performance of hybrid systems and expanded sales     Heavy-duty vehicle fuel consumption: promotion of early market release of vehicles that comply with fuel consumption.					
Warn	Deve	3	Development of technology for energy & fuel diversification	Assessment of synthetic fuels, etc., and R&D of corresponding technologies      Production>     Promotion of CO <sub>2</sub> reductions through the promotion and development of eco-factor activities (incorporating energy conservation items from the planning stage)     Promotion of the introduction of wind and photovoltaic power generation and other natural and new forms of energy, etc.      Implementation of CO <sub>2</sub> reduction measures through improvements in the transport efficiency.     Expanded overland transport of light-duty trucks and expanded marine transport of finished vehicles.					
Energy & Global Warming	Production & Distribution		Reduction of CO <sub>2</sub> in production and distribution activities in all countries & regions						stage) ation and other
	જ	4			Region Global	Item	o wolumo [	Target Reduction of 10% of the 2003 level	
	<u>.</u>			Production	dional	Emissions per sale: Emissions per sale:		Reduction of 35% of the 1990 level	
	ict			Froduction	Hino	Emissions		Reduction of 10% of the 1990 level	
	þo			-	Domestic	Emissions		Reduction of 10% of the 1990 level	
	ᇫ			Distribution	Overseas			ded activities for reduction	
				Diot ibation	01010000	· ·		1007 and shift to target-based management	
<u> 6</u>	Development & Design	5	Effective promotion of initiatives for the achievement of a 95% recycling rate by 2015	Promotion of design for improving recyclability (integration of resin materials, switch to easily recyclable materials, reduction in types of parts, improved durabil Development of design standards to improve disassembly operations and definite incorp developed vehicles  (2) Enhancement of recyclability (disassembly) assessment systems  (3) Reinforced collaboration with disassembly businesses and other related businesses Development of recycling and disassembly information Development of the process from recovery of recyclable materials to recycling treatment Promotion of the reuse of used parts					incorporation in
Resource Recycling	tion		Further promotion of the effective use of resources for the realization of a recycling-oriented society						landfill waste)
eso	ipn				Region	Applicable item	ltem	Target	
~	Distr	6			Domestic	Emissions	Emissions per sales volume	Reduction by 5% of the 2003 level	
	Production & Distribution			Production	Hino	Emissions	Emissions per sales volume	Reduction by 50% of the 1990 level	
	ıct				Overseas	Waste		-level reduction activities in each country	
	rod			Distribution	Domestic Overseas	Packaging materials  Comprehension of the w	Consumption olume of packaging m	Reduction by 45% of the 1995 level aterials used and expanded activities for reduction	
	-				2.2.0000				
		7	Reduction in water use	Setting of	individual ta	rgets in each co	untry and su	ustained reduction of water use	

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# **Targets**

- 1. Promotion of energy-saving and anti-global warming measures
- 2. Promotion of resource recycling
- 3. Reduction in the use of environmentally hazardous substances
- 4. Conservation of the atmospheric environment
- 5. Further promotion of eco-friendly business management

			Initiatives			Specific	implementa	tion items, targets, etc.	
Environmental Burden	Development & Design	8	Management of environmentally hazardous substances and promotion of further reductions  Promotion of reductions of four environmentally hazardous substances (lead, mercury, cadmium, hexavalent chromium) and further increase in applicable substances  Reduction in vehicle interior VOCs and further increase in applicable substances	Introduction of vehicles with the total elimination of the four environmentally hazardous substances (lead, mercury, cadmium, hey chromium) in domestically produced vehicles beginning in 2006 (to be completed by 2007; there are some non-applicable parts)  Promotion of the reduction in the four substances in vehicles produced overseas in compliance with domestically-produced vehice  Expanded applicability for reduction of environmentally hazardous substances and promotion of systematic reduce  Achievement of vehicle interior VOC standards beginning with new model vehicles in 2007 (Ministry of Hea Labor and Welfare guideline values = Japan Automobile Manufacturers Association (JAMA) target values)  Development of air conditioning equipment using refrigerants with low global warming coefficient					ne non-applicable parts) uestically-produced vehicles on of systematic reductions 2007 (Ministry of Health, AMA) target values)
Environme	Production & Distribution	9	Reduction in emissions of substances subject to the PRTR Law	Reducti      Production	Region Domestic	Item Emission	ns F rous emission targe	Target  eduction by 40% of the 1998 level ts based on regulations in each ctivities	n the painting process
vironment	Development & Design	10	Reduction in emissions gases conducive to improvements in the urban atmospheric environment in each country and region	Domestic     Development and setting of designated low-pollution vehicles, etc.     Development and commercialization of vehicles in compliance with the Post-New Long-Term Emission Regulations  Overseas     Development and commercialization of technology compatible with US07 and US10     Development and commercialization of technology compatible with Euro4 and Euro5				ce with the Post-New le with US07 and US10 le with Euro4 and Euro5	
ric Env	ibution		Measures for reducing VOC emissions in painting processes	Reduction	Applicable item	f cleaner thinne Region	er in painting   	orocesses and adoption of Target	water soluble paints
Atmospheric Environment	Production & Distribution	11		Production	Body paint Other paint	Domestic Overseas Domestic & overseas	of VOC emissions	(all line average)	
		12	Reinforcement of consolidated environmental management	CProduction entities>     Global expansion of eco-factory activities effectively incorporating environmental measures from the planning stage (zero violations & complaints, minimization of environmental risk, top-ranking environmental performance in each country and region)     Clobal management of and improvements in environmental performance including CO2 by all group units     Global Environment     Group-wide initiatives for environmental conservation through periodic meetings of the Global Environment Council					
al Management	Management	13	Further promotion of environmental management by business partners	<ul> <li><suppliers> • Further enhancement of activities in collaboration with suppliers         <ul> <li>→ More thoroughgoing management of environmentally hazardous substances cont delivered parts, raw materials, production equipment, etc.</li> </ul> </suppliers></li> <li><li><i> Commestic of Promotion of environmental improvement activities of sales offices based on Sales in Environmental Guidelines of Hino Motors, the leading diesel vehicle manufacturer companies&gt; → Exhaustive management of appropriate equipment and tasks in compliance with environment-related laws are initiatives for reduction activities based on a comprehension of the volume of energy usage and dischalted sales companies of the volume of energy usage and discha</i></li></li></ul>				ubstances contained in based on Sales Company manufacturer ment-related laws and regulations y usage and discharge of waste	
nenta		14	Enhancement of environmental education	Continue	d implementatio	on of environme	ntal education	for elevating employee awar	eness of the environment.
Environment		15	Introduction of comprehensive vehicle environmental assessment systems taking the LCA approach into account	· · ·					ork environment (database,
Ш	ociety	16	Participation in and contributions to environmental conservation activities					t of the Hino Green Fund nental education from a	
	<b>Collaboration with Society</b>	17	Disclosure of environmental information and enhancement of interactive communication	Provision of eco-driving information to customers     Issuance and further enhancement of environmental reports in each country and region     Global enhancement of communication with the local community					try and region
	Collabor	18	Active contributions to and recommendations for environmental policies taking sustainable development into account	Promotion of global meetings for commercial vehicles     Promotion of environmental initiatives established by the Nippon Keidanren, JAMA and other industry organizations					

# **Hino Motors Environmental Management System**

Hino Motors has developed environmental management systems (EMS) encompassing all business functions and is effectively managing them in a manner that links its core business operations to environmental conservation. The systems are furthermore periodically subjected to stringent environmental audits to ensure their effectiveness.

## Acquisition of ISO 14001 certification by Hino Motors

By April 2003, Hino Motors had acquired ISO14001 certification for its headquarters functions and product development, production and parts and vehicle distribution functions and also at the Tamachi Office, which is in charge of overall supervision of domestic and overseas operations.

It will continue to promote environmental initiatives with an even stronger commitment while reinforcing links between its core business operations and environmental management systems.

### Acquisition of ISO14001 Certification

		Date of acquisition
Headquarters & Hino Plant	Production, product development, production	March 24, 2001
	technology and headquarters functions	
Hamura Plant	Production functions	March 10, 1999
Nitta Plant	Production functions	March 27, 2000
Oume Parts Center	Distribution functions	January 11, 2002
Hidaka Delivery Center		
Tamachi Office	Domestic and overseas operational	April 25, 2003
	functions	

### Internal and external environmental audits

We are conducting internal environmental audits and outside inspections by registered inspection organizations within the context of implementing our environmental management systems based on ISO14001.

The outside inspection of FY2005 included the observations noted to the right but no nonconformities (NCs) were found.

### **Audit results**

		Major NCs	Minor NCs	Observations
Headquarters & Hino Plant	Surveillance	0	0	3
Hamura Plant	Renewal audit	0	0	2
Nitta Plant	Surveillance	0	0	3
Oume Parts Center Hidaka Delivery Center	Renewal audit	0	0	3
Tamachi Office	Surveillance	0	0	1

### Green purchasing

We have prepared and internally developed the Green Purchasing Guidelines while referencing the Green Purchasing Items Specified under the Green Purchasing Law and Green Purchasing Promotion Plan in order to promote even more positive efforts in green purchasing of office supplies and equipment. We achieved our target for FY2005 and will continue to implement 100% purchasing.



### **PDCA Cycle Flow**

Hino Motors' environmental management system promoting sustained improvements through the PDCA cycle consisting of "plan," "do," "check" and "action" based on ISO14001.

# **Environmental Conservation Activities of the Hino Group**

Hino Motors is not only pursuing in-house initiatives but is also committed to environmental conservation within the Hino Group including affiliated companies both in Japan and overseas and sales companies supported by activities for the acquisition of the international standard ISO14001 certification.

# Activities of domestic affiliated companies

Hino Motors presents its Environmental Procurement Guidelines to all domestic suppliers with the request that they develop their own environmental management systems. request major suppliers to acquire ISO14001 certification and continue encouraging those that have not yet obtained certification to do so. In addition, this year, we have also asked all suppliers for their cooperation in accelerating the realization of SOC (substances of concern) management and reduction, which is being pursued through voluntary rules by the Japan Automobile Manufacturers Association.

In addition, we have organized the Production Environment Working Group (Domestic Affiliated Companies) made up to twenty-two major suppliers, which is promoting environmental management activities. periodically hold informal gatherings with the participating companies stimulate improvements in environmental management while setting specific targets in each field and implementing environmental conservation activities.

# Activities of affiliated companies overseas

We hold Production Environment Working Group (Overseas Affiliated Companies) meetings twice a year for the company's six production subsidiaries overseas. These meetings are for the purpose of creating an atmosphere conducive to the achievement of further reductions in the environmental burden. With the goal not only of sharing necessary information among the participants, personnel in charge of environmental affairs at each of the companies introduce reports of progress in activities for achieving the targets and case examples of initiatives for energy and resource conservation in a spirit of friendly rivalry.

At the meeting held at HMMT (Thailand) in March 2006, in particular, representatives of each of the companies announced their plans for the achievement of targets by 2010 and succeeded in building up unified determination to achieve the targets for 2010 as a group.



# Activities of domestic sales companies

In order to further expand the circle of environmental management in a form more closely linked to the customer, we issued Sales Company Environmental Guidelines, a compilation of Hino Motors' own environmental management requirements, to all of the 41 our domestic sales companies that have service shops. Compatibility with the guidelines is currently being audited and sales companies and offices that comply with all of the items are certified as Eco-Management Dealers (EMDs).

A total of 179 offices of 38 of the 41 domestic sales companies have thus far been certified as Eco-Management Dealers and five of these have also acquired ISO14001 certification.

# Acquisition of ISO and EMD certification

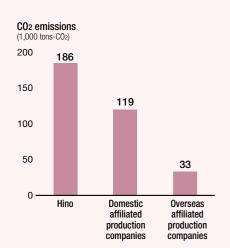
EMS development in the Hino Group

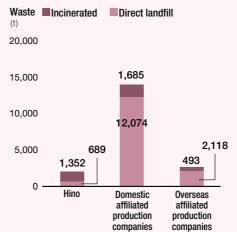
End of March 2006

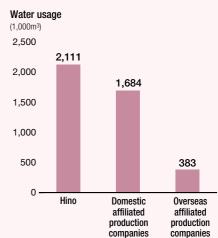
			EMS development		
		Subject	Acquisition of	Eco-Management	
		companies	IS014001	Dealer	
			certification	certification	
Dome stic	Affiliated companies	22	22	_	
	Major suppliers	275	204	_	
	Sales companies	41	5	38	
Overs eas	Affiliated companies	5	3	_	

Note: The number of companies that have acquired Eco-Management Dealer certification also includes companies that have acquired ISO14001 certification. Eco-Management Dealer is a certification granted by Hino Motors (see p.31).

# Major environmental data of Hino Group production bases in FY2005 CO<sub>2</sub> emissions, direct landfill and incinerated waste and water usage







# **Environmental Education and Risk Management**

We are implementing environment-related educational and enlightenment activities to heighten the environmental awareness of the employees aiming for the practical introduction of effective environmental conservation activities.

In addition, we also devise emergency response measures and conduct training regularly to assure safe operations and reductions in the environmental burden.

## **Environment-related educational** and enlightenment activities

We are actively implementing environment-related educational and enlightenment activities because of our conviction that it is important to pursue the enhancement of the awareness of each individual employee in order to promote effective environmental conservation activities.

Environmental education incorporated in the educational program for new employees since 1994, providing opportunities to gain self-awareness and a sense of responsibility as personnel who serve as a driving force in the vehicle manufacturing industry.

### **Educational program (participants in FY2005)**

Course	No. of participants
New employee education	109

### **Acquisition of environment-related** qualifications (as of March 2006)

Environment-related qualification	Number
Environmental management system lead inspector	1
Environmental management system inspector (backup)	12
Pollution control manager	77
Energy manager	23

### **Typical activities**

### **Company-wide 5S Activity** Campaign

The "5Ss" are the initial letters of five Japanese words that mean "well organized ("Seiri"), orderly ("Seiton"), cleanup ("Seiso"), cleanliness ("Seiketu") and discipline ("Shitsuke")." Prompted by the Environment Month, we at Hino Motors reaffirmed the importance of engaging in "5S" activities on a company-wide basis. 5S activities have been held throughout the company continuously since June 2004 based on the passwords of "start first from the environmental 5Ss close at hand. Come on, let's go! Be so thorough that you won't recognize that it's the same place!"

This year, the second year of activities, all of the departments are vigorously and voluntarily promoting 5S activities with the officers in charge of the various functions playing central roles. Everyone seeks to realize improvements by various means such as "5S cross inspections," in which the officers in charge take the lead once every six months to inspect the 5S conditions of departments involved in other functions through friendly competition. The 5S activities, in which attention is focused first on one's own immediate surroundings, are beneficial in uplifting the environmental and safety awareness of the employees. 5S activities are also being carried out at affiliated companies both in Japan and overseas as part of environmental initiatives.

### **Emergency response and** environment-related accidents

In order to ease the environmental burden, efforts are made to assure the maintenance and management of stable operations through the establishment of appropriate operational and work standards. In addition, emergency response procedures have also been established to enable systematic and effective activities in the event of an emergency and response training is also conducted periodically.

An oil spill occurred at the Nitta plant in FY2005 and measures were implemented for a quick response, elucidation of the cause and recurrence prevention.

### Complaints, lawsuits and product recalls

Five environment-related complaints were received in FY2005. Specifically, there were three noise and vibration related complaints, one odor related complaint and one oil spill complaint. In response, surveys were conducted and appropriate measures were adopted.

There were eight product recalls in FY2005 (see p.38), though none of them were environment related.

In an environment-related lawsuit dealing with the effects of vehicle emissions on health, a verdict was handed down in the first hearing in October 2002 that did not recognize the liability of vehicle manufacturers for compensation. appeal by the plaintiff is currently pending in court.

# **Environmental Accounting**

Hino Motors tabulates the cost and effects of environmental conservation based on the Environmental Accounting Guidelines of the Ministry of the Environment.

In addition, effective environmental investments are carried out based on a comprehension of costeffectiveness with the aim of achieving sustained reductions in the environmental burden.

### Cost of environmental conservation

Environmental cost tabulated by Hino Motors is classified in the table below based on the Guidelines for the Introduction of Environmental Accounting Systems of the Ministry of Environment. The actual environmental conservation cost performance in FY2005 amounted to a sum total of ¥24.9 billion (2.7% of sales). However, due to difficulties in distinguishing between environmental response and other objectives in the case of capital investments, only those costs in which an environmental response can be unquestionably ascertained are posted.

### Cost of environmental conservation

Unit: mil. yen ("-" indicates less than 1 mil. yen)

			F) (0		FY2004		T (2)	
Item		Description of major initiatives	FY2				FY2	
			Investments	Costs	Investments	Costs	Investments	Costs
(1) Costs in operational	Pollution prevention cost	Cost for the prevention of atmospheric, water and other	48	339	314	430	8	262
areas		contamination	70	555	314	400		
	Global environmental	Cost of energy conservation facilities and global	39	1	56	1	57	1
	conservation cost	environmental conservation	00	ı.	30		01	<u>'</u>
	Resource recycling cost	Cost of resource recycling including recycling, waste	3	412	2	448	_	460
		treatment, etc.						
	Total		91	752	371	879	65	723
(2) Upstream & downstrea	m costs	Additional costs for reducing environmental burden						
		Costs for EMS development & implementation & certification	_	_	_	_	-	_
		acquisition						
(3) Management activity co	osts	Costs for monitoring & measuring environmental burden		419	_	435		429
		Labor costs for environmental conservation measure organizations		413		700		
(4) Research & developme	nt costs	Costs of research & development of Eco-Products		19,370	19 370	26,171	_	23,718
		Costs of research & development for reducing environmental burden		10,070		20,171		
(5) Social activity costs		Costs of environmental improvement measures including						
		nature conservation, greening, etc.		_		5	_	5
		Costs for contributions to & support of organizations, etc.,				3		3
		that implement environmental conservation						
(6) Environmental remedia	tion costs	Costs for restoration of nature destruction, etc.						
		Insurance premiums for a response to environmental damage						
Total			91	20,546	371	27,490	65	24,875
			20,6	637	27,8	361	24,9	940

Note: The values of some reported items have been changed since last year due to a revision of the scope of the tabulation.

### Effects of environmental conservation

The effects of environmental conservation are calculated only for those items that can be definitely identified as single year effects. Specifically, the total amount for FY2005 was 620 million yen due to the reduction in energy costs as the result of energy conservation and reduction in waste treatment costs as the result of waste reduction.

### **Economic effects**

Unit: mil. ven

Item		FY2003	FY2004	FY2005
Profits	Business income, etc., due to recycling	439	692	565
Reduced costs	Reduction in energy costs due to energy conservation	27	39	28
	Reduction in waste treatment costs due to resource conservation and recycling	3	38	9
Total		259	470	769

Note: The values of some reported items have been changed since last year due to a revision of the scope of the tabulation.

### Quantitative effects

Item	FY2003	FY2004	FY2005
CO <sub>2</sub> reduction (t-CO <sub>2</sub> )	659	631	2,978
Waste reduction (t)	1,435	1,300	255

# **Headquarters** and Hino Plant





Acquisition of ISO14001 certification: March 24, 2001



**Environmental Management** Head Office and Hino Plant Shinji Fujimoto

### Aiming to become a plant in harmony with the community and the global environment

Since the Hino Plant is located adjacent to residential areas, coexistence with the local community is indispensable for successful plant management. We are continuously and systematically introducing improvements in the facilities and processes in order to avoid inconveniencing the local residents in any way whatsoever due to noise, vibration, offensive odors and other sensory nuisances.

We furthermore encourage communication with the local residents by inviting them to participate in informal gettogethers and exchange events and also through neighborhood cleanups and other activities.

We are promoting environmental conservation activities aiming to become a plant that is in harmony with the community and the global environment as a corporate citizen.

### Plant overview

Address: 3-1-1 Hinodai, Hino-shi, Tokyo Major products: Hino Profia heavy-duty truck, Hino

Ranger medium-duty truck

Employees: 5,203 (as of March 31, 2006)

Site area: 447,081m<sup>2</sup> Total floor space: 399,983m<sup>2</sup>

2005, winner of Highest Award, Kanto Region **Electricity Usage Rationalization Committee** 



- adquarters and Hino Plant Environmental Policie
- Harmony with the community, coexistence with the environment
   Prevention of environmental contamination and

- Compliance with laws, regulations, etc. No waste and no wasteful use Enhancement of each individual's environmental awareness

### Community action activities of the plant

Hino Plant Cherry Blossom Festival (April 2005) Informal gatherings with the local residents (July & December 2005)

Community cleanups in the plant vicinity (July & September 2005)

Hino Technical High School activities Undergrowth cutting and pond cleaning in municipal parks (August 2005) Cleaning of streets used by school students (December 2005)



### Water quality (Water Pollution Control Law, Prefectural Ordinances) Effluent water quality analysis (river effluent - destination: Tama River via the Taniji River)

Item	Regulated value	Max.	Min.	Avg.
Discharge volume (m³/day)	_	5,503	1,181	2,510
pH	5.8~8.6	7.3	6.8	7.0
BOD (mg/L)	20	3.1	0.5	1.3
COD (mg/L)	_	14.0	6.6	9.2
SS (mg/L)	40	8.0	ND	2.6
N-hexane (mg/L)	5	ND	ND	ND
Total phosphorous (mg/L)	2	1.0	0.2	0.6
Total nitrogen (mg/L)	20	14.7	1.3	6.9
Zinc content (mg/L)	5	0.04	ND	0.02
Fluorine compounds (mg/L)	15	0.29	0.16	0.23

ND: Less than the minimum determination limit (not detected)

### Air quality (Air Pollution Control Law, Prefectural Ordinances)

Equipment	Measured substance	Regulated value	Max.	Min.	Avg.
Boilers (natural gas)	Nox (ppm)	45	34	21	28
	Soot and dust (g/Nm³)	0.1	ND	ND	ND
Cogeneration equipment	Nox (ppm)	35	25	16	22
(natural gas)	Soot and dust (g/Nm³)	0.05	0.003	0.001	0.002
Gas carburizing furnace	Nox (ppm)	180	123	120	122
#1 (natural gas)	Soot and dust (g/Nm³)	0.2	0.001	0.001	0.001

ND: Less than the minimum determination limit (not detected)

### Chemical substances (PRTR Law)

Unit: t/year

Cabii	net Class I Designated	Volume	Volume d	ischarged	Volume 1	ransferred	Volume	Volume	Volume
Orde No.	r Chemical Substances	handled	Air	Water	As waste	Public sewer system	recycled	removed/ disposed	consumed
1	Water-soluble zinc compounds	3.9	0.0	0.0	1.1	0.0	0.0	0.0	2.8
30	Bisphenol A-type epoxy resin (liquid)	1.3	0.0	0.0	0.1	0.0	0.0	0.0	1.2
40	Ethylbenzene	18.0	11.7	0.0	0.2	0.0	1.6	1.3	3.1
43	Ethylene glycol	437.8	0.0	0.0	0.0	0.0	0.0	0.0	437.8
63	Xylene	79.9	53.8	0.0	0.2	0.0	1.6	8.5	15.7
177	Styrene	8.9	0.5	0.0	0.0	0.0	0.0	0.0	8.4
224	1,3,5-trimethylbenzene	3.2	0.8	0.0	0.2	0.0	2.1	0.1	0.0
227	Toluene	47.0	21.5	0.0	0.2	0.0	0.0	2.3	23.1
299	Benzene	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1
311	Manganese and its compounds	1.6	0.0	0.0	0.4	0.0	0.0	0.0	1.1
Total		602.5	88.4	0.1	2.3	0.0	5.3	12.2	494.3

- Applies to volumes handled of 1 ton or more (or 500kg or more in the case of Specified Class I Designated Chemical Substances)
- Volume removed/disposed: Volume removed by incineration, decomposition or other treatment method
- Volume consumed: Volume converted to other substances by chemical reaction or incorporated in or appended to products and removed from the premises

# **Hamura Plant**





Acquisition of ISO14001 certification: March 10, 1999



**Environmental Coordinator** Hamura Plant Kazuhiko Watanabe

### Aiming to become an eco-friendly plant

The Hamura Plant is engaged in environmental conservation initiatives aiming to become an eco-friendly plant advocating the environmental policy of "promoting business activities in harmony with nature."

In FY2005, we actively pursued "5S" activities for environmental conservation in our immediate surroundings while making special efforts to achieve the "2Ss" (well-organized: and orderly: "Seiri and Seiton" in Japanese).

Another feature of the Hamura Plant is our dedication to the importance that we place on our partnership with the local community. Based on this stance, we thrive on lively interaction with local residents. In addition, along with the development of the Hino Group overseas, we are actively developing environmental conservation and 2S activities as the parent plant of the plants overseas with the aim of become an eco-friendly plant as group representative.

### Plant overview

Address: 3-1-1 Midorigaoka, Hamura-shi, Tokyo Major products: Hino Dutro light-duty truck, Dyna, Hilux Surf, FJ Cruiser, Route Van, Town Ace Employees: 2,675 (as of March 31, 2006)

Site area: 750,770m<sup>2</sup> Total floor space: 379,043m<sup>2</sup>

October, 2004, winner of the Chairman's Award, High Pressure Gas Safety Institute of Japan February 2005, Director-General's Award, Natural

Resources and Energy Agency

November 2005, Prevention Manager's Award,

Tokyo Fire Department

February, 2006, Highest Award, Kanto Region **Electricity Usage Rationalization Committee** 



Hamura Plant – Environmental Policies

- with the natural environment
  2. Effective utilization of limited resources
  3. Development of a partnership with the local

### Community action activities of the plant

Hamura Plant Cherry Blossom Festival (April 2005) Cooperation in the Tulip Festival (April 2005) Curve mirror cleaning by the company labor union (April & September 2005) Cooperation in the Hamura City Summer Festival (July 2005) Cooperation in the Hamura City Industry Fair (November 2005) Cooperation with the Hamura City Chamber of Commerce and Industry



### Water quality (Sewerage Law), effluent water quality analysis (sewer effluent)

Item	Regulated value	Max.	Min.	Avg.
Discharge volume (m³/day)	_	3,246	41	1,570
PH	5.7~8.7	7.3	6.3	6.8
BOD (mg/L)	300	5.5	1	2.3
SS (mg/L)	300	16	2	4.88
N-hexane (mg/L)	5	ND	ND	ND
Total phosphorous (mg/L)	20	11.1	0.12	0.6
Total nitrogen (mg/L)	150	16.9	2.29	6.9
Zinc content (mg/L)	5	0.04	ND	0.02
Fluorine compounds (mg/L)	15	1.6	0.75	1.18

ND: Less than the minimum determination limit (not detected)

Air quality (Air Pollution Control Law, Prefectural Ordinances)

Equipment	Measured substance	Regulated value	Max.	Min.	Avg.
Boilers (heavy oil)	Nox (ppm)	100	87	44	68
	Soot and dust (g/Nm³)	0.25	0.007	0.004	0.005
Cogeneration equipment	Nox (ppm)	950	800	780	790
(heavy oil)	Soot and dust (g/Nm³)	0.1	0.049	0.039	0.044
Cogeneration equipment	Nox (ppm)	35	26	20	23
(natural gas)	Soot and dust (g/Nm³)	0.05	ND	ND	ND
Drying furnaces	Nox (ppm)	180	91	9	29
(natural gas)	Soot and dust (g/Nm³)	0.1	0.025	ND	0.006
Incinerator (heavy oil)	Nox (ppm)	250	110	100	105
	Soot and dust (g/Nm³)	0.5	0.002	ND	0.001
	Hydrogen chloride (mg/Nm³)	750	90	17	54
	Dioxins (ng-TEQ/Nm3)	5	1	0.47	0.74

ND: Less than the minimum determination limit (not detected)

### Chemical substances (PRTR Law)

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

Cabir	net Class I Designated	Volume	Volume discharged		Volume transferred		Volume	Volume	Volume
Orde No.	r Chemical Substances	handled	Air	Water	As waste	Public sewer system	recycled	removed/ disposed	consumed
1	Water-soluble zinc compounds	10.2	0.0	0.0	3.0	0.1	0.0	0.0	7.2
16	2-aminoethanol	2.8	0.0	0.0	0.0	0.0	0.0	2.6	0.2
30	Bisphenol A-type epoxy resin (liquid)	8.5	0.0	0.0	0.3	0.0	0.0	1.1	7.2
40	Ethylbenzene	118.2	70.7	0.0	0.0	0.0	13.7	13.0	20.8
43	Ethylene glycol	848.4	0.0	0.0	0.0	0.0	0.0	0.0	848.4
44	Ethylene glycol monoethyl ether	24.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0
63	Xylene	357.5	184.9	0.0	0.0	0.0	32.3	36.0	104.3
101	2-ethoxyethyl acetate	38.9	37.4	0.0	0.0	0.0	0.0	1.5	0.0
176	Organic tin compounds	1.2	0.0	0.0	0.1	0.0	0.0	0.0	1.1
179	Dioxins (mg-TEQ)	0.0	(29.1)	0.0	(200)	0.0	0.0	0.0	0.0
224	1,3,5-trimethylbenzene	40.3	16.9	0.0	0.0	0.0	18.9	4.5	0.0
227	Toluene	310.8	136.4	0.0	0.0	0.0	0.0	22.1	152.2
232	Nickel compounds	1.7	0.0	0.0	0.8	0.0	0.0	0.0	0.9
272	Bis (2-ethylhexyl) phthalate	1.8	0.0	0.0	0.1	0.0	0.0	0.0	1.7
299	Benzene	7.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
311	Manganese and its compounds	18.7	0.0	0.0	1.2	0.1	0.0	0.0	17.4
Total		1,790.1	470.4	0.0	5.6	0.2	64.9	80.9	1,168.1

- Applies to volumes handled of 1 ton or more (or 500kg or more in the case of Specified Class I Designated Chemical Substances)
- Volume removed/disposed: Volume removed by incineration, decomposition or other treatment method
- Volume consumed: Volume converted to other substances by chemical reaction or incorporated in or appended to products and removed from the premises

# Nitta Plant





Acquisition of ISO14001 certification: March 27, 2000



**Environmental Management Coordinate** 

# Shintaro Yamamoto

### Aiming to become an ever evolving plant friendly to people and the environment

At the Nitta Plant located within a lush green setting, we are promoting environmental conservation and improvement activities while never forgetting the impact on the environment within the context of all plant activities based on the Nitta Plant Environmental Policies.

Besides compliance with laws and regulations and harmony with the local community, all of the employees at the plant challenge higher goals including the reduction of CO<sub>2</sub>, which has a strong impact on the environment, and reduction of SOC and waste with the aim of becoming a plant that is friendly to people and the environment with each individual employee fully aware of the importance of contributing to environmental conservation.

### Plant overview

Address: 10-1 Nittahawakawa-cho, Ota-shi, Gunma Prefecture

Major products: Medium- and light-duty truck engines, heavy- and medium-duty truck transmissions, medium-duty truck axles Employees: 1,089 (as of March 31, 2006)

Site area: 393,932m2 Total floor space: 190,709m<sup>2</sup>

2002, Director-General's Award (electrical division), Natural Resources and Energy Agency 2003, Energy Conservation Activity Excellent Group Award, Bureau of Economy, Trade and Industry 2004, Director-General's Award (thermal division),

### litta Plant — Environmental Policies

Natural Resources and Energy Agency

- 1. Harmony with the community, coexistence with the environment
- Based on Prevention Compliance with laws, regulations, etc.
- 4. No waste and no wasteful use
- environmental awareness

### Community action activities of the plant

Joint cleanup in Hayakawa together with Sawafuji Electric Co., Ltd. (May & September 2005) Exhibit, Ota City Nitta Industry Fair (October 2005) Autumn Festival (2,700 participants) (October 2005) Information exchanges with the community (every other month)



Water quality (Water Pollution Control Law, Prefectural Ordinances, Environmental Pollution Prevention Agreement with the local government)

Effluent water quality analysis (river effluent - destination: Hayakawa)

Item	Regulated value	Max.	Min.	Avg.
Discharge volume (m³/day)	_	963	58	532
рН	6.0~8.0	7.7	7.1	7.5
BOD (mg/L)	10	2	ND	1.4
SS (mg/L)	15	3	ND	2
N-hexane (mg/L)	3	ND	ND	ND
Total phosphorous (mg/L)	8	0.4	0.2	0.3
Total nitrogen (mg/L)	60	17	4.8	9.3
Zinc content (mg/L)	1	0.08	0.04	0.06
Fluorine compounds (mg/L)	1.5	ND	ND	ND

ND: Less than the minimum determination limit (not detected)

### Air quality (Air Pollution Control Law, Prefectural Ordinances)

Equipment	Measured substance	Regulated value	Max.	Min.	Avg.	
Boilers – 10-ton	Nox (ppm)	180	_	_	_	
(heavy oil)	Soot and dust (g/Nm³)	0.10	_	_	_	
Chemical substances	Nox (ppm)	180	85	69	79	
(PRTR Law)	Soot and dust (g/Nm³)	0.1	0.028	0.006	0.016	

### Chemical substances (PRTR Law)

Unit: t/year

Cabii	et Class I Designated	Volume	Volume discharged		Volume transferred		Volume	Volume	Volume
Orde No.	r Chemical Substances	handled	Air	Water	As waste	Public sewer system	recycled	removed/ disposed	consumed
25	Antimony and its compounds	5.2	0.0	0.0	0.1	0.0	0.0	0.0	5.1
40	Ethylbenzene	18.6	17.4	0.0	0.1	0.0	0.0	0.0	1.1
43	Ethylene glycol	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0
63	63 Xylene		22.8	0.0	0.1	0.0	0.0	0.0	10.7
68	Chromium & trivalent chromium compounds	55.4	0.0	0.0	1.1	0.0	0.0	0.0	54.3
224	1,3,5-trimethylbenzene	6.8	6.7	0.0	0.1	0.0	0.0	0.0	0.0
227	Toluene	48.7	40.5	0.0	0.1	0.0	0.0	0.0	8.1
232	Nickel compounds	1.4	0.0	0.0	0.1	0.0	0.0	0.0	1.3
266	Phenol	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
311	Manganese and its compounds	22.0	0.0	0.0	0.8	0.0	0.0	0.0	21.2
346	Molybdenum and its compounds	20.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9
Total		246.5	87.4	0.0	27.6	0.0	0.0	9.9	121.7

- Applies to volumes handled of 1 ton or more (or 500kg or more in the case of Specified Class I Designated Chemical Substances)
- Volume removed/disposed: Volume removed by incineration, decomposition or other treatment method
- · Volume consumed: Volume converted to other substances by chemical reaction or incorporated in or appended to products and removed from the premises

# **Oume Parts Center**

### Center overview

Address: 1-5-1 Suehiro-cho, Oume-shi, Tokyo Description of business: Management and

transport of service parts

Employees: 71 (as of March 31, 2006)

Site area: 26,288m<sup>2</sup> Total floor space: 31,533m<sup>2</sup>

- Oume Parts Center Environmental Policies
  1. Coexistence with the environment
  2. Prevention and sustained

- 3. Compliance with laws, regulations, etc.
  4. Streamlined flow of goods
  5. Reflecting each individual's





Acquisition of ISO14001 certification: January 11, 2002



**Oume Parts Center** 

The center manages truck and bus parts and components and transports them nationwide.

# **Hidaka Delivery Center**

### Center overview

Address: 689-1 Kamikayama, Hidaka-shi,

Saitama Prefecture

Description of business: Management and

transport of products (trucks)

Employees: 20 (as of March 31, 2006)

Site area: 265,989m2 Total floor space: 9,865m<sup>2</sup>

### Hidaka Delivery Center – Environmental Policies

- Coexistence with the environment
   Prevention and sustained improvement
   Compliance with laws, regulations, etc.





Acquisition of ISO14001 certification: January 11, 2002



### **Hidaka Delivery Center**

The center implements overall management of finished products (trucks) and transports them to van/trailer manufacturers and other companies nationwide.

# Tamachi Office

### Center overview

Address: 4-11-3 Shiba, Minato-ku, Tokyo Description of business: Vehicle sales and

general administration

Employees: 449 (as of March 31, 2006)

Site area: 1,136m2 Total floor surface: 8,743m<sup>2</sup>

- Tamachi Office Environmental Policies 1. Improved customer confidence in our environmental efforts

- 3. Compliance with laws, regulations, etc.
  4. No waste and no wasteful use
  5. Enhancement of each individual's
- 6. Effective collaboration with sales companies nationwide





Acquisition of ISO14001 certification: April 25, 2003



### Tamachi Office

It is the office that is in charge of the general administration of the domestic and foreign sales sectors.

# **Course of Environmental Initiatives**

Year		Management, Production		Products	Social Movements
1990	12/90	Hino Plant - Introduction of cogeneration			
		equipment			
1991	7/91	Establishment of Hino Green Fund	4/91	Release of HIMR vehicles equipped with	
1992	4/00	Introduction of Homero Class Contar		hybrid diesel-electric engine system	4000 Die de Janeire Forth Commit
1992	4/92 5/92	Introduction of Hamura Clean Center Total elimination of specified chlorofluorocarbon			1992 Rio de Janeiro Earth Summit 1992 Establishment of medium-term brake
	3/32	refrigerant (CFC113) used as a mold release			regulations
		agent for forged parts			rogulations
1993	3/93	Formulation of the Hino Global Environment Charter	3/93	Establishment of Environment Technology Working Group	1993 Enactment of the Basic Environment Law
		Formulation of the Hino Global Environment Action Plan	5/93	Issuance of advance assessment implementation	1993 Enforcement of Law concerning Special
		Establishment of the Hino Environment Committee		guidelines based on the Recycling Law	Measures for Total Emission Reduction of
		Establishment of Production Environment Working Group		Completion of switch from specific air	Nitrogen Oxides from Automobiles in
				conditioning refrigerant to alternate refrigerant	Specified Areas
1994	6/94	Total elimination of trichloroethane used in			1994 Emission regulations for 1994
		cleaning parts			
	12/92	Hamura Plant - Introduction of cogeneration			
1005		equipment #2	2/05	Delegas of vehicles equipped with common	
1995			2/95	Release of vehicles equipped with common	
1996	3/96	Hino Global Environment Action Plan, 1st revision		rail fuel injection systems	
1997	3/97	Nitta Plant - Introduction of casting sand			1997 COP3 held in Kyoto
		recycling equipment			,
1998	11/98	Elimination of small-size incinerators as a	2/98	Announcement of the voluntary action plan,	
		dioxin countermeasure		an end-of-life vehicle recycling initiative	
1999	3/99	Hamura Plant - acquisition of IS014001			1999 Emission regulations for 1999
		certification			
2000	3/00	Nitta Plant - acquisition of ISO14001	2/00	Release of vehicles equipped with Pulse EGR	
	0.000	certification		systems	
2001	9/00 2/01	Issuance of environmental reports	12/01	Palance of first vahicles in Japan aguipped	2001 Noice regulations for 2001
2001	2/01	Hino Global Environment Charter, 1st revision Formulation of Hino Motors Environmental VP	12/01	Release of first vehicles in Japan equipped with 5-cylinder turbo intercooler engine	2001 Noise regulations for 2001
	3/01	Achievement of zero emissions at all 3 plants		with 5 cylinder turbo intercooler engine	
	0,07	Headquarters & Hino Plant - acquisition of			
		ISO14001 certification			
2002	1/02	Oume Parts Center & Hidaka Delivery Center	2/02	Receipt of Director-General's Award, Natural	2002 Enforcement of the revised Law concernir
		- acquisition of ISO14001 certification		Resources and Energy	Special Measures for Total
		Establishment of Recycling Working Group		Agency, Energy Conservation Award for the	2002 Emission Reduction of Nitrogen Oxides an
		Establishment of Sales Company		new model hybrid HIMR route buses	Particulate Matters from Automobiles in
		Environment Working Group			Specified Areas Johannesburg Earth Sum
	7/02	Issuance of Sales Company Environmental			
	0/02	Guidelines Issuance of Environmental Procurement			
	9/02	Guidelines			
2003	4/03	Tamachi Office - acquisition of ISO14001	8/03	Release of ultra-low PM certified 4-star light-	2003 Emission regulations for 2003
	.,,55	certification	2,00	duty trucks	
			10/03	Release of ultra-low PM certified 4-star	
				medium- and heavy-duty trucks	
	8/04	Hino Plant - Introduction of frame	4/04	Release of newly developed medium-duty	2004 Emission regulations for 2004
2004		deodorizing equipment		hybrid trucks	
2004		Nitta Plant - Introduction of cogeneration	8/04	Release of ultra-low PM certified 4-star small-	
2004	9/04			size buses	
		equipment			
2004	9/04	Nitta Plant - Reinforcement of wastewater	5/05	Release of medium-duty trucks compatible	2005 Enforcement of Law for the Recycling of
				with 2005 emission regulations	End-of-Life Vehicles
		Nitta Plant - Reinforcement of wastewater	5/05 8/05	with 2005 emission regulations Release of large-size touring coaches	End-of-Life Vehicles 2005 Validation of Kyoto Protocol
		Nitta Plant - Reinforcement of wastewater		with 2005 emission regulations	End-of-Life Vehicles 2005 Validation of Kyoto Protocol 2005 Emission regulations for 2005
		Nitta Plant - Reinforcement of wastewater		with 2005 emission regulations Release of large-size touring coaches	End-of-Life Vehicles 2005 Validation of Kyoto Protocol

Note:

ISO Management Production

Note:

Domestic Overseas

# **Editor's Postscript**

We would like to thank you for perusing the Hino Motors Environmental & Social Report. The report was edited this year with special attention given to the following.

- 1. Conveying to our readers the initiatives and stance of Hino Motors regarding the environment and society in an easily-comprehensible form.
- 2. Conveying the close relationship between the trucks and buses that we produce and everyday life.

Specifically, we are introducing our business operations at the very beginning (pp.1-2) in order to convey the fact that the trucks and buses manufactured by Hino Motors are playing an active role closely linked to our lives.

In the interview with the president that comes next (pp.3-4), we present a dialog between Agnes Chan, PhD in education and also ambassador for UNICEF in Japan, and President Kondo. This introduces the initiatives of Hino Motors in a question-and-answer format from a third-party perspective.

In addition, on the special feature pages (pp.7-14), we introduce safety and security as well as initiatives for the benefit of our customers intermixed with interviews with personnel in charge at the very forefront of Hino Motors' activities.

We aspire to continue conveying even more comprehensible information beneficial to our customers to enable them to understand our efforts that aim to support the movement of people and goods and grow together with society. We look forward to receiving your frank opinions and impressions.



### Participation in Team Minus 6%, a national campaign for the prevention of global warming

Hino Motors participates in Team Minus 6%, a national campaign for the prevention of global warming, and is striving to reduce CO2 emissions through the sustained promotion of energy conservation activities and other initiatives.



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Tel: +81-42-586-5005 Fax: +81-42-586-5299 Issuance date: November 2006

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