

# INOAC CORPORATION

CSR REPORT 2021 Corporate Philosophy

# Creating a beautiful forest,

comprised of many trees of varying character,

# rather than merely growing a single tall tree.

In our efforts to enrich people's lives, we at INOAC have specialized in not only a single business, but we have cultivated four business "seedlings" - polyurethane, rubber, plastics and composite materials. Today we have developed into a conglomerate, supplying diverse products and services, thereby contributing to society.



#### Contents

C	ontents / Corporate Philosophy	01
	Company profile	
	Message from the president	02
	Company outline	05
	[Feature Story] Eco-Friendly Product Developr	nent
	(1) Plant-Based Polyurethane Foam	
	Ecolocel	06
	(2) Polyurethane Foam Chemical Recycling	07
	(3) Developing Cross-linked Polyethylene Foam Recycling Technology	I
	Repeco®	08
	(4) Carbon Fiber Recycling	09
	[Feature Story] CSR Activities Overseas	10
	Harmony with the environment	
	Environmental management	11
	Reducing our environmental footprint	13
	Managing information on chemical materials	15
	Improving value	
l	Quality improvement efforts	16
	Communication with society	
	Contributing to society and communities	17
	Producing an employee-friendly workplace	
	Improving in-house systems	19
	Human resource development	20
	Safety and health / Disaster prevention	21
	Supply chain management	
L	Supply chain management	22
	Governance & compliance	
	Governance	23
	Compliance	24
Δ	policability of report	25



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Harmony with the environment Improving value

History

# Message from the president

# Helping to Achieve the Imperative of Carbon Neutrality with Innovative INOAC Technologies

# INNOVATION & ACTIO

世界にイノベーションの種をまくイノアック

INOAC CORPORATION President & COO **Toyohiko Okina** 

# The many trees of varying character supporting corporate management through COVID-19

多くの個性ある木を向 Fiscal 2020 was a year that required action in response to changes in the environment, as society and the economy underwent major transitions due to the COVID-19 pandemic. Since we at INOAC operate in many different business areas and offer many different types of products and services throughout the world, the pandemic impacted us in both good ways and bad ways. In automotive-related business, orders decreased due to manufacturer shutdowns and production cutbacks. On the other hand, business related to health care and stay-at-home demand was robust. Based on our corporate philosophy of "creating a beautiful forest, comprised of many trees of varying character, rather than merely growing a single tall tree," we were able to distribute the pandemic-related risk with our diverse business portfolio. In production we had production cutbacks at some sites while other sites were at near-full capacity for consecutive days, so it was hard to coordinate personnel and other resources in certain cases. However, we were able to implement on-site improvements and production automations that we could not start when orders were continuously robust. Our technology departments were spending less time attending to customers, so they utilized that extra time to focus on more technological development. While these changes in the environment are

# Message from the president

likely to continue in fiscal 2021, our strength in diversified business operations will see us through.

# Staying focused with sense of urgency in this age of great transformation

We believe that changes will be even more turbulent than last year in fiscal 2021. There are four key points in the external environment that we must focus on. The first key point is the shortage of semiconductors, which impacts automotive-related business. This situation had been expected to improve in mid-2021, but there has still been no improvement. The second key point is the steep rise in prices of petroleum materials due to stoppages of supplies from raw materials (resin) producers resulting from the massive cold wave that hit the US in 2021. As of November 2021, this situation is still ongoing. The third key point is the fragmentation of supply chains in Asia due to the COVID-19 pandemic. Lockdowns have forced automakers to cut back on production, and products such as automotive components are not being exported. The last key point is the slowdown in exports and imports (logistics) due to the shortage of containers.

As the automotive industry enters an age of major transformation, how will these problems evolve going forward? With no end to the COVID-19 pandemic in sight and the impacts still lingering, we will stay focused and act with a sense of urgency.

# Coming together as a company to embrace the "industrial revolution of materials" and survive

Taking another perspective, turbulent external environments and

social change are also opportunities. I would like to think of these as chances to create the innovations of the future. These times of transition to a new age are likely trying times not only for us, but for our customers as well. I see these current circumstances, with society's demands changing drastically on an ongoing basis, as an opportunity as a materials manufacturer to contribute to the growth and development of our customers and society. As an example, for carbon neutrality it goes without saying that we would struggle if we were to continue manufacturing things the way we do now. I am telling our employees that "there is an 'industrial revolution' in materials taking place. We cannot remain viable in this new age with our existing technologies and production systems." This is because the world wants materials with different functionalities from what has existed until now, and we will need to change everything in order to capture this new demand. The materials industry is inherently an industry in which you must always innovate in order for your development to keep up with the times. The way things are now, you also cannot hope to survive without taking action to deal with issues on a global scale. I think that all of our employees, not only those in charge of technology but also those in materials, equipment, plants, management, and other sections will need to come together to generate and deal with innovation.

# Leveraging technologies established 40 years ago for carbon neutrality now

The name of our company "INOAC" originates from the combination of "INO" for constant innovation, with "AC" for action to put that innovation into practical use. Innovation is not something that can be achieved overnight. Engaging in many small business activities on a daily basis and refining them into

something better will lead to innovation. INOAC has a history of continuous innovation in materials development from a medium to long-term perspective based on that approach. Around 40 years ago, although it did not turn into a commercialized product after the second oil crisis subsided, we established a technology that uses palm oil to produce biomaterials which can serve as alternatives to petroleum materials. We have also established and taken over materials development operations that are essential for what has been known until now as "recycle & reuse," such as technology to turn polyurethane products back into raw materials, and technology to turn scrap tires into material that can be reused. New technologies and materials are not necessarily accepted and put into use right away. They are undeniably subject to the demand of the times. Still, we have emphasized development with an eye toward the future, continuously innovating and taking action. Now that carbon neutrality is an imperative that must be achieved, I believe that our technologies have truly become indispensable. With *Thermax* which we have already commercialized and released, as well as *Ecolocel* flexible polyurethane foam made from at least 50% plant-based raw materials, our bedding and assistive technology tools made of polyurethane for characteristics such as elasticity and air permeability, and more, we are actively involved in addressing



Ecolocel flexible polyurethane foam made from plant-based raw materials

# Message from the president

the issues of climate change and the increasingly aging societies in the world. I am confident that we are building a track record as a company capable of contributing to society.

# Social contributions locally and globally as the foundation of our business

At INOAC we are building an even better society and fulfilling our social responsibility through activities such as developing the next generation of resources and engaging in business that is rooted in communities.

Since our founding we have been creating jobs rooted in communities both in Japan and around the world. Aside from the Higashi-Meihan area in Japan we also operate four plant facilities in the Tohoku region and six in Kyushu. Overseas we have a total of 41 group companies in Asia, China, and North and Central



America. At all of our facilities in Japan and overseas we do business with a focus on hiring locally. And when major disasters have struck at our business locations, we have worked closely with the local areas to assist reconstruction. As such, our locations are close-knit members of their respective communities which could even be considered to be local plants and companies.

Our mission as a manufacturer is not just to make products, but to consistently provide good things to the world. Starting in 1985, INOAC has held the World QC & Improvement Competition in Japan, where successful examples of quality control activities from production sites in different countries are shared and production, technology, and quality control initiatives are spread throughout the INOAC Group, based on the commitment to never allow problems to arise in the products that we create. For many years we have also been providing scholarships to outstanding students in Japan and overseas, and contributing grant money for excellent research conducted by university faculty members, supporting the development of human resources and research that will define industry, society, and the future itself. Some of our scholarship students in Europe, the Americas, and Asia are already thriving.

In order to develop our core business in polyurethane and help to improve its value, we also sponsor the International PU Forum organized by the International Polyurethane Technology Foundation.

We consider all of these activities to comprise the foundation of our business. With companies now expected to contribute toward achieving the SDGs, we in the INOAC Group are confident that we will continue actively contributing to society as we have been since our founding.

Companies are made up of the people who work for them, and the development of human resources in-house is also one of our highest priorities. Since business and technology are becoming borderless in global society, we must diligently apply ourselves, compete, and survive in the global arena. It has been said that absorbing global information and cultivating human resources in technology development are hard to do in an island nation like Japan. However, at INOAC we have a deep-rooted culture of developing global human resources, and we provide work experience in positions of responsibility at our overseas locations to young employees in particular.

Finally, since we need local employees with global mindsets for the further growth of our overseas locations, we conduct global human resources development not only for Japanese employees but for all.

# Pursuing sustainability with our enduring spirit of "partnership with society"

Our corporate philosophy of "many trees of varying character" describes the breadth of our business domains, and can be considered the source of our growth. This means that even if some drastic change in the environment were to occur, we are always prepared either with something that can handle it or with the capability to develop what we need to handle it.

As indicated by SDGs goal number 17 "Partnerships for the Goals," the world needs companies that create diverse partnerships and contribute to a sustainable society. Working together with all of our diverse customers and suppliers as a partner, we will double our collective efforts as a company to help create a carbon neutral society.

Company profile

#### Company profile

Company profile

Harmony with the environment Improving value

# **Company outline**

INOAC CORPORATION		
720 million yen		
Chairman & CEO Soichi Inoue President & COO Toyohiko Okina		
2-13-4 Meieki Minami, Nakamura-ku, Nagoya, Aichi 450-0003		
4F Osaki West-city Bldg., 2-9-3 Osaki, Shinagawa-ku, Tokyo 141-0032		



#### Main Businesses

# **INOAC** Materials for a Comfortable Life.

INOAC operates in five broadly-defined categories of business. We make people's lives more comfortable and enjoyable in many different life scenarios, offering a wide range of products in various markets.

1 High Performance Materials INOAC operates in various fields closely related to daily life, from consumer products to information technology equipment and housing and construction materials

2 Automotive-Related Products We offer products for interiors and exteriors, products for car functions, and seat-related products that help make cars safer and more comfortable

# 3 iRC Tire

This specialist manufacturer of motorcycle, bicycle, and wheelchair tires and tubes is the original founding section of the INOAC Group.

#### 4 Housing & Construction materials

We mainly operate in housing, construction, civil engineering, and environment-related business.

5 Bedding & Furniture We produce mattresses for a comfortable night's sleep, as well as the "Smile" brand of nursing care furnishings and the HUKLA furniture brand.











plant-based raw materials.

approach.

**Carbon Neutrality through Sustainable Raw Materials** 

This product offers two main advantages.

(2) Reducing dependence on fossil resources

Ecolocel is a flexible polyurethane foam made from at least 50%

(1) Carbon neutrality that reduces dioxide (CO<sub>2</sub>) emissions Carbon neutrality here refers to the approach of producing zero net

CO2 emissions through the use of plant-based raw materials,

balancing out the CO<sub>2</sub> emitted when products are manufactured

and discarded with the CO<sub>2</sub> absorbed in the growth process of the

plants resulting in no increases to CO<sub>2</sub> released in the air over the life cycle as a whole. We developed *Ecolocel* based on this

We have chosen a method that keeps the earth's limited fossil resources form being exhausted and has no impact of food

problems due to the use of non-food plant-based raw materials.

Photosynthesis Growth

Illustration of the carbon cycle when using plant-based raw materials

**Raw materials** 

Making products

**Disposal** 

after use

# **Eco-Friendly Product Development**



#### Pursuing carbon neutrality

Due to the adoption of the SDGs (Sustainable Development Goals), sustainable development is being seen as increasingly important. Companies are now expected to develop products made of sustainable raw materials instead of conventional petroleum-based materials. We selected raw materials from among plants not used for food in order to proceed with development based on the approach of carbon neutrality using plant-based materials while also helping to achieve SDGs goal number 2 "Zero Hunger." To also contribute toward achieving SDGs goal number 13 "Climate Action" we started development on materials with 50% or higher content of biomass (made from at least 50% plant-based raw materials), which has less impact on the environment.

#### Successful transition to mass production through trial & error

Raising the biomass content destabilizes foaming and the deterioration of physical properties is inevitable, so biomass levels of 30% had previously been the highest. Developing foam with a \* Image shown is only an illustration

biomass level of at least 50% was therefore an extremely daunting research theme.

We first began experiments with a laboratory scale. While the foam did take shape, its strength was weak and its properties were unstable, so we went through repeated trial and error. We reselected the plant-based raw materials and the properties finally stabilized after that, so we proceeded to try mass production-based foaming. However, this was not the same as the laboratory scale. Since it involves continuous production, we encountered a variety of problems. Enlisting the help of the Manufacturing Section in addition to the Technology Section, we further improved the composition and optimized the production conditions, and at long last we were able to reach the stage of mass production.

#### Aiming for applications in the consumer products market

This foam is currently in use for making kitchen sponges, but we will be adding features such as high impact resilience, low resilience, and high hardness and deploying it for other usage applications such as mattresses in the future.

# \* Image shown is only an illustration



Absorb

Generate



(pillows, mattresses, kitchen sponges)



Material Development Group Urethane Technology Section Foam Products Department High Performance Material Division

Hirotaka Wada





Riona Sato

Feature Story

# **Eco-Friendly Product Development**



#### \* Image shown is only an illustration

#### Big obstacle in breaking chemical bonds

Polyurethane is a resin with thermosetting properties, making it different from thermoplastic resins such as polypropylene and polyethylene terephthalate in that it can neither remelt nor reshape when heat is applied. It cannot be reused as raw material if its chemical bonds are not broken. Since it is difficult to break polyurethane bonds once they are formed, chemical recycling of polyurethane resin presents a formidable challenge and has not advanced very far in practical application.

This time, we attempted to lower the technical difficulty and establish a basic technology by targeting in-house polyurethane foam waste with precise material composition.

#### Establishing chemical recycling technology

We selected compounds that promote the decomposition of polyurethane foam and studied methods to purify the degraded material. Doing so, we were able to establish a basic technology at the laboratory level and verify that the foam could be regenerated as raw materials.

For regeneration into polyurethane foam, we have verified that the same performance as existing products can be achieved even when around 20% of the raw material is replaced with recycled material, so reuse appears viable.

The challenge now is to scale up toward mass production. We are currently implementing this at a pilot plant on the way to scale-up and are selecting the equipment needed for each process. After installing the equipment we plan to review the reaction conditions and equipment conditions, and test out mass production.

We also intend to work on improvements to yield and energy efficiency to establish this as an energy-saving, clean chemical recycling technology that contributes even more toward Photo comparing polyurethane foar environmental conservation. made from normal polyol and

regenerated polyol

Left: made from normal polyol, Right: made from regenerated polyol



With heightening interest in global environmental issues such as the SDGs, carbon neutrality, and marine plastic waste, we believe companies—particularly manufacturers of resin products such as INOAC—have an inherent responsibility to take action toward environmental conservation.

Our main product at INOAC is polyurethane foam. Since it is foam material, much of its production is volume-based, and it is a resin that strongly needs to be recycled.

However, while some polyurethane foam waste is reused as materials and thermally recycled to be used as recycled materials and heat sources, some is also discarded without any efficient use. For that reason, we are working to boost its recycling rate by developing chemical recycling technologies to recycle the foam as raw materials.



Illustration of the polyurethane foam chemical recycling process

#### **Balancing environmental conservation** with comfortable lifestyles

Ultimately, we want to expand the scope of or recycling beyond polyurethane foam waste generated in production processes to also include used products as well.

We will continue striving to develop eco-friendly technologies that can balance environmental conservation with comfortable lifestyles.





Technologies Development Group Global Technical Division



Tomotaka Hara

Feature Story

reduce waste

efficiency.

**Efforts to significantly** 

This technology recycles cross-linked polyethylene foam (PE-LITE®) material cutoffs produced by INOAC. It has established a cyclical system to re-employ material cutoffs that used to be discarded, to use them as raw materials. Thanks to this recycling technology, nearly all material cutoffs can now be recycled into the original product they were produced for, PE-LITE®. We expect this to significantly reduce waste and improve usage

Global environmental problems have reached critical stages in recent years, and carbon neutrality has emerged as a rallying cry. As an INOAC initiative, we are now using the material cutoffs recycled through this

technology as part of the raw materials used when

producing PE-LITE<sup>®</sup>. This has reduced the usage of new material, ultimately reducing CO<sub>2</sub> emissions and

contributing toward carbon neutrality.

#### t Governance & compliant

## **Eco-Friendly Product Development**

Developing Cross-linked Polyethylene Foam Recycling Technology Repeco®

# 200

\* Image shown is only an illustration

#### New products created from material cutoffs

The production characteristics of PE-LITE® products inevitably result in large volume of material cutoffs. We have long conceptualized the idea of recycling of these cutoffs for reuse as raw materials, but there were just too many challenges to overcome.

In studies on crushing equipment for a different development process, we tried processing PE-LITE® material cutoffs and found a possible solution to the high bulk specific gravity which had previously been the biggest roadblock to recycling the cutoffs. From there, we began to study crosslink cleavage processes. After around one year in development we established the technology, and recycled cutoff material *Repeco*® was finally complete.

#### *Repeco*<sup>®</sup>: the journey to completion

There were two main challenges.

08

The first challenge was crushing the foam. When simply crushing the foam it would be lighter with a bulk specific gravity

crushing the foam it would be lighter with a bulk

of 0.075g/ml, and it was difficult to subsequently input into the machines used for breaking crosslink since it was in a soft and fluffy state. To overcome this, we worked together with a crushing machine manufacturer to develop a special new crushing process which resulted in bulk specific gravity at least three times heavier. We were then able to input the crushed foam into the machines for the next process.

The second challenge was breaking cross-link of polyethylene. Extruders are used for this, and aspects such as the specifications, screw structures, barrel structures, and operating conditions of the extruders are extremely important. First for the extruder specifications, we could not simply use extruders made by any company. The specifications of extruders differ by company. There were differences in crosslink cleavage capability in the extruders made by each manufacturer. Through the process of creating prototypes we were able to identify the important parameters, from which we were able to determine that an extruder made by one particular company would be advantageous. That brought us to the point of installing the mass production machinery. Next for the screw and barrel structures

and operating conditions, we created prototypes with dozens of different patterns and found the optimal pattern.

Having resolved these and other issues, we were able to establish the new recycling technology.

#### The final waste reduction

We are currently preparing the production lines for Repeco\*. First



we aim to create a circular economy contained within a single plant for polyethylene foam. We are considering initiatives after that to reduce final waste volume by rolling this out to our other locations, and ultimately collecting and reusing material cutoffs generated by clients. In our development work, we are constantly thinking about what would be good not only for INOAC but for society as a whole.



Naoya Okumura



Illustration of the PE-LITE® recycling process

Feature Story

# **Eco-Friendly Product Development**



# Usage cycles to reduce our environmental footprint

Conventionally, carbon fiber reinforced plastic (CFRP) materials are high-performance high-priced composite materials that combine resins with carbon fibers made from petroleum and coal. Here, we reused high-value carbon fibers extracted from discarded CFRP products (regenerated CFs) and combined them with thermoplastic resin to develop recycled carbon fiber reinforced thermoplastics (CFRTP). Since these high-performance resin materials offer the superior lightweight, high-strength properties of carbon fibers and can be processed and molded like normal plastics, they have great potential for use in a wide variety of products.



Illustration of the carbon fiber recycling process

#### production.

#### Applications in various fields

Currently, we are looking into usage applications for which olefin resins can be deployed. In the future, we also plan to deploy this technology in engineering plastics and offer ways to utilize these material properties in many different fields.



#### Cyclical use of carbon fibers

Demand for CFRP has skyrocketed in recent years, and it has been used in airplanes, cars, industrial materials, and a broad range of other usage applications in place of metals such as iron and aluminum. Many CFRPs are made from resins with thermosetting properties which make them hard to reuse. Most of them are discarded as industrial waste, causing an increasingly heavy impact on the environment. At INOAC we manufacture and sell industrial CFRP products (RL-C), so we are grappling with the same waste problems. Carbon fibers are high-priced materials to start with, and large amounts of energy are also expended to manufacture them. Therefore, if carbon fibers could be used cyclically in-house, it could help to reduce CO<sub>2</sub> emissions.

With that in mind, we began looking into compounds combining thermoplastic resins with regenerated CFs obtained when thermal treatment is applied to CFRP waste. Initial goals:

1. Easy processing and molding of products

\* Image shown is only an illustration

2. Materials that cost less but have the same characteristic values through the use of virgin carbon fibers

#### **Overcoming many challenges**

There were three main challenges involved in development. The first challenge was the adhesion of the regenerated CFs. Since

Co., Ltd.

Section

there is no functionality on the surface of regenerated CFs that have undergone high-temperature treatment, their adhesion to resin is not robust. To overcome that, we introduced compatibilizing agent with organic functionality and applied surface treatment to the regenerated CFs.

Second was the compounding process to combine regenerated CFs with resin. Since regenerated CFs have significant shape variations after processing, it was difficult to attain even dispersion. However, we studied

methods of supplying the raw materials and set the conditions inside the extruder which enabled us to attain even dispersion.

Third was the evaluation method. Since this was a material that had not previously existed, we needed to establish analytical evaluations for making products from it, as well as quality control methods. To accomplish this, we analyzed the carbon fiber content and dispersion morphology in the material, and verified the form of its thermal degradation during mass material pany profile

Feature Story

Harmony with the environment Improving value

# **CSR Activities Overseas**



# What is Relay For Life?

It was 1985 in Tacoma, Washington in the United States. One doctor walked and ran around a track continuously for 24 hours, raising money for donations to the American Cancer Society. This was how Relay For Life activities began. Its aim is to provide support by sharing the awareness that cancer patients face their disease 24 hours a day. Events representing this activity which generates hope and the will to live by walking and talking together currently takes place in about 30 countries worldwide, in roughly 4,500 locations and bringing in as much as 30 billion yen in donations per year.



# Donating to the American Cancer Society for 18 consecutive years through Relay For Life activities

**INOAC GROUP NORTH AMERICA, LLC. (IGNA)** 

#### How we joined Relay For Life

We joined Relay For Life and began donating to the American Cancer Society as IGNA in 2001.

IGNA HR Manager Renea McCauley was told in June 1999 that her mother had breast cancer. She was right by her mother's side until she recovered, through surgeries, radiation therapy, doctor examinations, and more. The following year, she participated in Relay For Life for the first time. She was impacted deeply to learn about the involvement and support from local communities for cancer survivors, those who are serving or have served as caregivers, and cancer victims who have lost their lives.

#### Local communities generate hope

After returning to work, she lobbied for IGNA to get involved in the activity, and the first volunteer team was launched at IGNA in Springfield in 2001.

Specifically, the team is active throughout the year selling homemade candies and snacks and holding events such as silent auctions and raffles (for charity) to raise money. The money they raise is first used to support local cancer patients and survivors (costs of doctor's visits, transportation, wigs, life expenses, etc.) and stays in the community. Funds remaining after that are allocated to support cancer treatment research activities by the American Cancer Society.

#### End suffering from cancer

Over the past few years, IGNA is one of the groups that has raised the most funds from the community. Relay For Life activities had to slow down due to the COVID-19 pandemic, and IGNA had been unable to organize events in the community for the past two years. However, all groups in the community (Washington County) have expressed that they are continuing to raise funds and support the American Cancer Society.

Many staff members at IGNA in Springfield who participate in

Relay For Life activities have friends and family members who are battling cancer. We are tremendously proud to have continuously participated in activities such as these, raised funds, and supported cancer patients and cancer research as a team for 18 years running.

Human Resources INOAC GROUP NORTH AMERICA, LLC. (IGNA)



Renea McCauley

# **Environmental management**

## **Environmental vision**

INOAC respects the natural environment of our irreplaceable earth and contributes to realizing an affluent society that is comfortable to live in through technology harmonized with our environment and environment-friendly corporate activities.

## **Environmental policy**

- (1) We observe environmental laws and regulations, thoroughly ensure compliance, and engage in business activities that society can trust.
- (2) We work to reduce CO<sub>2</sub> emissions such as by saving energy, to help achieve a carbon neutral society and prevent global warming.
- (3) We work on resource conservation, waste reduction and recycling to contribute to a recycling-oriented society.
- (4) We properly manage chemicals that could impact the environment and seek to preserve our environment by reducing risk.
- (5) We actively develop products with less environmental impact, contributing to the conservation of nature throughout the life cycles of the products.
- (6) We engage in environmental management, educate employees about the environment, implement environmental audits, and continue to improve.
- (7) We contribute to establishing a sustainable society through local environmental preservation work as good corporate citizens.



# Environmental management system

In order to engage in environmental activities in an organized fashion, the Person Responsible for Environmental Management implements integrated management related to the environment, under the direct control of top management. In addition, the company as a whole also engages in environmental activities under the direction of the Committee on Environment. We have organized specific section committees to handle industrial waste and energy saving, and we coordinate environmental management through these committees while seeking further improvements in mitigating our environmental impact. As we strengthen the connection between environmental management and our main business in managing our objectives, we are also supporting the appropriate efforts where changes are taking place, such as newly built business locations, buildings, and production lines.

#### **Environmental Preservation Promotion System**



## Internal environmental audits

We implement internal environmental audits to check the operational state of our environmental management system. The audit team consists of two to three employees who have completed the auditor training prescribed by the company. The team checks if the environmental management system is being properly operated, maintained and improved. We create audit guidance and take steps such as revising checklists to emphasize efforts toward goal achievement and compliance in order to improve the guality of the audits.

## **External environmental examinations**

The Japan Quality Assurance Organization (JQA), an external certification body, conducts examinations to check if our environmental management system is functioning properly in accordance with ISO 14001:2015.

In conjunction, expanded examinations were conducted in FY 2020 at the Kira Plant and the Kyushu INOAC Yukuhashi Plant. No areas were found to be in need of improvement as a result, and the auditors determined that the system is being maintained. Issues pertaining to legal and regulatory compliance efforts and corrections to non-compliant matters were addressed in the overall findings.

# **Environmental management**

# Summary of major activities in FY 2020

The results of INOAC's major environmental efforts in FY 2020 are shown in the table below. In terms of reducing CO<sub>2</sub> emissions resulting from energy use, the Committee on Energy Saving continued to take the lead in various efforts. However, fluctuations in production volume due to the COVID-19 pandemic resulted in lower production efficiency and we were unable to reach our targets. In terms of reducing waste disposal, we moved forward in reducing emissions, including recycling. However, we were unable to reach our targets because market conditions for resalable waste have become stricter each year. Volume of PRTR substances released decreased from the previous year due to progress in replacing materials that contain these substances and other efforts, although not enough to achieve our goal.

Initiative		Targets in FY 2020	Achieved in FY 2020	Result
Reduce energy consumption	Factory-related	Intensity (CO <sub>2</sub> emission/production sum 0.548 or less CO <sub>2</sub> emissions 59,149 t-CO <sub>2</sub> (2019 result)	Measured units 0.581 (CO <sub>2</sub> emissions 52,172 t-CO <sub>2</sub> (2020 result)	7
	Office-related	CO <sub>2</sub> emissions 170,100 kg-CO <sub>2</sub> or less	CO <sub>2</sub> emissions 315,601 kg-CO <sub>2</sub>	Y
Reduce waste	Factory-related	$ \begin{array}{c} \text{Measured units} (\text{CO}_2 \text{ treated amount/} \\ \text{production sum}) 0.0573 \text{ or less} \\ \hline \\ \text{Treated amount} \\ \text{7,245 t} (2019 \text{ result}) \end{array} $	Measured units 0.0763 Treated amount 6,847 t (2020 result)	7
	Office-related	Treated amount 1,462 kg or less	Treated amount 570 kg	-
PRTR substances reduction in release and transfer amounts     Measured units ((amount emitted + amount transferred), production sum) 2.09 or less       Amount emitted + amount transferred 209,635 kg (2019 result)		Measured units 2.27 Amount emitted + amount transferred 170,961 kg (2020 result)	7	
Environmental improvement activities	Cases of enviro company) 1,22	nmental improvements (total in entire 7 cases or more	1,763 cases	-
Environmental communication Issuance of CSR report		Issued	-	

👎 Target reached 🐥 Not yet reached but progressing 🌱 Target not reached 🚽

\* Business locations from which environment data is collected to summarize major activities are shown below.

INOAC Corporation	Anjo Plant, Sakurai Plant, Kira Plant, Nanno Plant, Yana Plant, Ishimaki Plant, Ikeda Plant, Ikeda 2nd Plant, Ohno Plant, Jinno Plant, Head Office (Nagoya/Tokyo), Osaka Branch, Hanyu Plant, Jinno R&D Center
INOAC Housing & Construction Materials Co., Ltd.	Ibigawa Plant, Kofu Plant
Kyushu INOAC Co., Ltd.	Yukuhashi Plant, Kikuchi Plant, Ukiha Plant, Kitakyushu Plant
Techno Foam Japan Co., Ltd.	Head Office, Saitama Plant
Kyushu Color Foam Co., Ltd.	Higashi Nihon INOAC Co., Ltd.

\* The Kira Plant and Yukuhashi Plant (Kyushu INOAC) were added to the data collection range

## Compliance with environmental laws and regulations

At INOAC, we identify environmental laws and regulations that are relevant to our business activities, and manage them on a daily basis. Through monitoring, measurement, and assessment at each plant, we prevent environmental pollution and otherwise conduct environmental risk management to ensure that we properly comply with laws and regulations related to noise and industrial waste treatment as part of our environmental management system. In accordance with business ethics, we will continue strictly adhering to environmental preservation agreements with local government, including environmental laws and regulations.

#### Major environment-related laws and regulations pertaining to our business

Air	Air Pollution Control Act, Automobile NOx PM Law, Act on Special Measures against Dioxins
Water quality and soil	Water Pollution Prevention Act, Purification Tank Act, Sewerage Act, Soil Contamination Countermeasures Act
Noise, vibration & odor	Noise Regulation Act, Vibration Regulation Act, Offensive Odor Control Act
Chemical substances	Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof, Poisonous and Deleterious Substances Control Act
Resource conservation & recycling	Act on the Rational Use of Energy, Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging, Act on Rational Use and Appropriate Management of Fluorocarbons, Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes, Waste Management and Public Cleansing Act
Disaster prevention	Fire Service Act, High Pressure Gas Safety Act
General & others	Factory Location Act, Act on Improvement of Pollution Prevention Systems in Specified Factories, Radio Act

\* Local government ordinances are omitted \* Some are abbreviated

## Training for emergencies

We identify accidents and emergencies according to the characteristics of each business facility, and periodically conduct training to prevent environmental pollution resulting from earthquakes, fires and leakage of oils and raw materials. Disaster prevention trainings planned for spring and fall at the Anjo Plant (Aichi Prefecture) were cancelled due to the COVID-19 pandemic, but spill prevention training was conducted in manufacturing sections on November 12, 2020. In other facilities, training for emergencies and urgent circumstances is conducted on a preparatory basis.



Anjo Plant / Training for emergencies

## **Reduce energy consumption**

To help to prevent global warming, we have been engaged in efforts to reduce CO<sub>2</sub> emissions by promoting energy saving. Specific measures being taken include covering material drying ovens with heat insulation sheets to reduce energy loss from heat escaping, installing inverters into cooling tower fans to reduce energy usage, and using thermal insulation boards to insulate buildings. Our CO<sub>2</sub> emissions resulting from energy use in FY 2020 decreased by approximately 10% compared to FY 2019, and decreased slightly in terms of intensity.







Enorty		
Key efforts to promote energy saving in 2020		
Insulating buildings using INOAC's <i>Thermax</i> thermal insulation boards	Installing inverters into cooling tower fans to reduce energy usage	
Reducing energy usage by utilizing heat exhaust from compressors to heat rooms	Curtaining off areas of large workspaces to improve the efficiency of air conditioning	
Conducting air leakage patrols and eliminating air leakages at each business location	Reducing energy loss from heat escaping by covering material drying ovens with heat insulation sheets	
Lining windows with INOAC's <i>Cell Shade</i> heat insulation sheets	Installing demand meters and visualizing demand as a measure to address peak energy usage	

Effort







Thermal insulation of worksites with Thermax

Toyohashi Plant / Heat insulation sheets as a measure for materials dryers

Curtaining off areas of workspaces

#### Other efforts to prevent global warming

INOAC is working on preventing global warming from other perspectives as well. During the summer, we hold our Summer Eco-style Campaign to educate our employees on how to save energy, such as by promoting "cool biz" energy saving attire. We are also engaged in cooperative transport and deliveries

(milk runs), a modal shift to railway and maritime transport, and consolidation of distribution bases. Furthermore, we have installed and are operating solar power generation equipment (total installed capacity 5,417 kw/h) in unused spaces on 15 different production plant sites throughout Japan.

#### 13 INCAC CSR REPORT 2021

Company profile

K

Harmony with the environment Improving value

# **Reducing our environmental footprint**

# Activities to reduce waste

In terms of waste reduction, the company-wide Committee on Waste Reduction leads efforts to improve our rate of product commercialization by reducing defects and increasing yield, and to reuse more material cutoffs. Our waste treatment amount in 2020 was 5% lower than in 2019. While our measured units of waste treated decreased, we were unable to reach our target. We are working toward reducing emissions by expanding sales of the long cushion (see article at right) made from material cutoffs, commercialization of products made from recycled materials, and other such efforts.

# Activities to reduce the use of environmentally hazardous substances

INOAC uses PRTR substances such as m-tolylene diisocyanate, a raw material for polyurethane foam as well as xylene and toluene which are used in coating processes. To reduce the amount handled, released, and transferred of these substances, we have made progress in replacing dichloromethane and bis phthalate plasticizer (2-ethylhexyl) which is partially left over as foaming agent, and we were able to reduce release and transfer amount as well as the output intensity of the substances compared to the previous year.





# Measured units of waste treated (treated amount (t)/production sum (million ven))



#### PRTR substance release and transfer amount (kg)



# PRTR substance release and transfer amount intensity (release and transfer amount (kg))/production sum (million yen))



# Development and manufacturing of the long cushion, a recycled product

We are developing and manufacturing products with material remnants of polyurethane that we produce, crushed into chips to be used as filling for cushions. With polyurethane in chip form, cushions exhibit less deformation over long-term use, thus extending the life of the product. Products have longer replacement cycles and produce less waste thanks to longer product life and the use of unneeded material remnants that had been treated as industrial waste.



#### \* Business places from which environment data are collected on pages 15 and 16 are shown below.

INOAC Corporation, Anjo Plant, Sakurai Plant, Kira Plant, Nanno Plant, Yana Plant, Ishimaki Plant, Ikeda Plant, Ikeda Plant, Ohno Plant, Jinno Plant, Jinno Plant, Head Office (Nagoya/Tokyo), Osaka Branch, Hanyu Plant, Jinno R&D Center
INOAC Housing & Construction Materials Co., Ltd./Ibigawa Plant, Kofu Plant 
Kyushu INOAC Co., Ltd./Yukuhashi Plant, Kikuchi Plant, Ukiha Plant, Kitakyushu Plant 
Techno Foam Japan Co., Ltd./Head Office, Saitama Plant
Kyushu Color Foam Co., Ltd.
Higashi Nihon INOAC Co., Ltd.

Company profile

# Managing information on chemical substances

# Promoting IMDS, chemSHERPA and more

INOAC registers information on chemicals and reports it to our customers through IMDS<sup>\*1</sup>, particularly in the automotive field which is our main field of business. We have a management system to obtain the necessary information via our supply chain and to register the information into IMDS.

#### Information collection through IMDS in INOAC – reporting process and chemical management system



We also collect information and report it to our clients using the chemSHERPA<sup>+2</sup> format, which is widely used in the industrial world, especially the electrical machinery industry.

- \*1 IMDS (International Material Data System): A database for transmitting and obtaining information on materials and chemicals over the Internet for the automotive industry, which was originally developed to comply with the EU ELV
- \*2 chemSHERPA: A unified format to transmit information on chemicals contained in products in the supply chain, which the Ministry of Economy, Trade and Industry took the initiative in developing

# Creating an in-house database

The Automotive Division is creating an in-house database through which information on chemical substances contained in parts and materials purchased from suppliers is identified based on information about chemical substances, and centrally managed. This has allowed us to be certain of our compliance with laws and regulations on chemical substances and client requirements which increase each year, while also helping to improve the efficiency and the reporting accuracy of information we register in IMDS and when examining the chemical substances contained in our products.

# Establishment and implementation of green procurement criteria

We ascertain what chemical substances are regulated by laws, regulations, and by our customers, based on which we create our green procurement criteria - a list of those chemical substances that we should work to reduce. We present these criteria to suppliers and use them to obtain information on chemical substances contained in raw materials to be purchased. We are also consistently monitoring the latest regulatory developments, based on which we revise these criteria once each year.

## Communication about chemical substance management

The Global Quality Assurance Division is a company-wide organization for environmental stewardship, which organizes and leads meetings for the chemical substance management sections of each department once every two months. They review the green procurement criteria, check the management system and establish or change its operating rules, and exchange opinions concerning the latest trends in chemical regulations, such as the REACH regulation and ROHS Directive. They also periodically audit the management system in each department in order to maintain and improve management systems that are appropriate and reliable.



# **Quality improvement efforts**

# Transparency of quality is necessary in global competition

The INOAC Group has implemented a comprehensive management system based on ISO 9001 to guarantee quality and provide products and services that our customers can be satisfied with and use safely with confidence. We are also engaged in efforts to improve quality by collaborating with our customers. In recent years, quality fraud has become a large social issue and trust in Japanese manufacturing is wavering. Against this backdrop, the global trend is moving toward enforcing transparency in product development and manufacturing processes, as well as clarification of responsibility.

# Quality that can satisfy all customers

- Thorough quality compliance
- More robust quality risk management for new and critical quality products

# **Examples of initiatives**

#### 1. Thorough quality compliance

## (1) Observing official accreditations / certifications

Products of the INOAC Group which have received official accreditations or certifications are registered in the Global Quality Assurance Division, and we verify whether there are any discrepancies between the products and the examination criteria. We also periodically inspect whether there are any discrepancies between the logged information and the products themselves.



#### 2. More robust quality risk management for new and critical quality products

(1) Product component audit for critical quality We conduct audits and guidance at our production sites in Japan and abroad to improve quality and prevent any serious quality issues in advance that could threaten our company's existence through the loss of social trust.

#### (2) Quality audit of new products

**Basic policy** 

We conduct audits of products created using new technologies, new materials, new processes or for new usage applications, with the goal of preventing serious guality issues in advance.

#### Audit members

President, Global Technical Division, Global Quality Assurance Division, persons in charge of product technology, quality assurance, and sales

#### Audit areas

Material quality, product characteristics, product performance, structure, exterior, comparison with similar products, product safety, production safety, quality risks

#### (3) Managing new materials changes

Issues resulting from materials changes can lead to serious quality issues, so we manage materials changes in order to prevent these issues before they occur.

Materials changes are conducted through a framework in which the Global Technical Division and the persons in charge of technology and quality assurance at the departments in charge deliberate over the changes, and approval is given by the Global Quality Assurance Division.

#### 3. QC and improvement activities

QC (quality control) group activities for small groups to voluntarily gather on the topic of quality improvement have been taking place at INOAC since around 1965. These activities have since expanded worldwide. Starting in1985, INOAC has held the World QC & Improvement Competition on a global scale in order to share quality control activities taking place throughout the group of companies. The competition was canceled in 2020 due to concerns over the outbreak of COVID-19. Some blocks and locations have kept these group activities going by holding qualification rounds while taking precautions against the soread of infections.

# **Contributing to society and communities**

The INOAC Group takes various opportunities to engage in activities that build trust with society and communities.

Considering it our mission as a company to support the growth of children who are our future, we are engaged in educational and developmental activities in Japan and around the world.

## Japan

#### Donating polyurethane masks and vaccine transportation boxes

In order to help stop the spread of COVID-19, we are actively donating products made with INOAC technologies. In May 2020, we donated 6,000 polyurethane masks to the city of Anjo in Aichi Prefecture. Additionally, the Logistics Medical Division donated an i-Medisys set-temperature vaccine transport system to the city of Kaizu in Gifu Prefecture in April 2021.

We are also making donations to local government offices of other plants and business locations. These activities to provide support to communities will continue.

#### Disaster response agreement

The Saitama Plant of Techno Foam Japan Co., Ltd. has been providing interlocking foam mats to the city hall of Hanyu in Saitama Prefecture since April 2019. In August 2020, the plant and the city also concluded an Agreement to Supply Emergency Daily Necessities in Times of Disaster.

Interlocking foam mats offer versatile usage options, since they facilitate smooth partitioning of emergency shelters to prevent the spread of COVID-19, and have cushioning properties that can help to alleviate physical strain. Currently, Hanyu uses these mats in the Children's Square at their Civic Plaza facility.

#### Idea contest for elementary school students

For the healthy mental and physical growth of children who are our future, we at the INOAC Corporation aim to engage in activities that contribute to communities based on the three themes of "Nurturing ideas for making things," "Nurturing body and mind," and "Nurturing waste-free mentalities." As part of these efforts, we organized the first ever My Free Idea Contest, for which elementary school students all over Japan sent in their wonderful ideas.

We aim to continue holding idea contests that can serve as springboards to healthy mental and physical growth for children.



Donation presentation event in the city of Kaizu



Signing ceremony in Hanyu



# **Contributing to society and communities**

# Overseas

#### Charity activities for orphanages

#### INOAC LIVING VIETNAM CO., LTD. (Vietnam)

There are approximately 1.4 million children living in poverty in Vietnam, 157,000 of whom are orphans living in many different facilities throughout the country.

We hold regular charity events with the hope of providing spiritual and material support to the children in these facilities.

# Donating mattresses to schools

## INOAC POLYMER LANKA (PVT) LTD.

We donate bed mattresses produced in-house to local junior and senior high schools.

In order to support the health and safety of students and faculty of the schools, we are helping to make improvements to campus first aid rooms and break rooms. Through these donations we are also assisting students' sports activities, and we believe this is helping to develop better leaders.





# Donating mattresses to field hospitals

#### INOAC (THAILAND) CO., LTD.

In response to the COVID-19 outbreak, we are donating in-house produced mattresses to field hospitals.

In Thailand, Samut Sakhon Province was closed off at the beginning of 2021, and field hospitals were concurrently established. We supported healthcare workers there by donating 600 mattresses to help to make up for shortages of mattress for patients.

The INOAC Group is providing many types of support in each country during the COVID-19 pandemic.



## Improving in-house systems

# **Diversity efforts**

#### Promoting female employees

INOAC enables female employees to demonstrate their skills and capabilities, actively seeking out roles for them and creating environments where they can contribute to the company. Two female employees were promoted to manager roles in FY 2020, raising the ratio of female workers who comprise our management roles to 4%.

# Work related to the Act on the Promotion of Female Participation and Career Advancement in the Workplace

We promote women's success at work with the three goals below. They are designed to encourage female employees to demonstrate their potential and develop their careers in a variety of departments over a period of five years from April 1, 2021 to March 31, 2026.

# Goals

- (1) Raise the ratio of females among all INOAC workers to 20% or more.
- (2) Raise the ratio of female employees in sales roles to 15% and in technical roles to 7%.
- (3) Make the usage rate of managers' annual paid vacation equal to that of general employees (54.8%).

#### Employing persons with disabilities

In order to realize a society where everyone can expand their potential, we actively hire persons with disabilities. Doing so, we found that employees become more considerate toward others and that it creates heightened awareness.

#### Users of the continued employment system

Since January 2015, we have been actively engaged in creating an environment in which senior citizens can effectively put their career skills to use. We are increasing wages for employees who continue to work with us, thereby implementing a system that makes it worthwhile to rise to positions of responsibility.

# Promoting work-life balance

We are actively working to support balance between work and family life, to have an employee-friendly workplace and promote the advancement of women. According to our regulations regarding childcare leave, employees are able to take leave until their children are two years old. Special (paid) leave is also available to attend to sick or injured children: five days are provided to employees with one child and ten days to employees with two or more children. In addition, we offer a system of reduced working hours, which can be used for up to three years (available until the child finishes third grade in elementary school). We also institute five days of special paid leave when a spouse gives birth to a baby.

\* Flextime was changed from "with core time" to "no core time" on April 1, 2020.

# **Harassment prevention**

INOAC implements the following measures against harassment in the company.

#### (1) Declaration and publication of company policy

INOAC declares and discloses its company policy concerning harassment, including sexual and power harassment.

#### (2) Establishment of consultation desks

Consultation desks to address harassment in the workplace are established in workplaces across Japan (for each area). We also have dedicated consultation desks for women, and labor union consultation desks.

#### (3) In-house fact-finding surveys

We administer the Power Harassment Questionnaire annually for all employees, gain an understanding of the actual conditions, and take action in response.

#### (4) Harassment prevention training

All managers at INOAC are required to attend Harassment Workshops.

# Support systems to balance work and childcare (year enacted)

Paternity leave (before 1980) Flextime system (1990) Regulations regarding family care leave (1990) Happy Holiday Leave (1991) Regulations regarding childcare leave (1992) Regulations regarding measures for maternity health management (1998) System for paid half days off (2000) Family support holiday leave (2005) Sick/injured childcare leave (2005) Regulations regarding childcare leave amended (leave period extension) (2005) System of reduced work hours for childcare (2008) Family Care Leave (2010) Regulations regarding telecommuting (2020) Company profile

ony with the environment Improv

# Human resource development

# **Global human resource development**

The INOAC Group began full-scale overseas expansion in the late 1950s, and now operates factories and offices globally in more than 50 locations. In order to develop human capital that can drive progress in globalization, INOAC stresses its Global HR Development activities - with a particular focus on younger employees.

#### Pre-overseas work training

INOAC provides five total days of training by instructors from various sections of the company as well as outside instructors for employees who are candidates for overseas posts, to give them the skills and mindsets they will need to work outside of Japan. Every year we gradually make improvements to the training content. In 2020, this included content that highlighted the fulfillment of working overseas while seeking to preemptively alleviate anxieties about living abroad, including various online round table meetings with current expatriate employees and specific examples shared by in-house instructors who have worked overseas. Local staff members at overseas locations also appeared as supporters and role played meetings in English, which intimidated many of the trainees. However, some commented that at the end of the day, it had helped them realize the need for English language skills as well as their own lack of communication skills with foreigners in business settings, and they became determined to turn the experience into something positive. We also conduct training for risk management in situations such as terrorist incidents, kidnappings, and property theft.

While there are certainly many things that those on their first assignments will simply have to actually go abroad to understand, we are packing as much specific content as possible into the training.

#### Welcoming international employees

Current restrictions on international travel have made it difficult to visit Japan from overseas. However, we have still held the same Global Meetings that have been held each year until now, gathering managers and director-level personnel from locations in other countries together with main team members from INOAC departments to share Japan's new products, new technologies, and customer trends, and trade ideas about how to deploy them internationally. Sharing the circumstances in each country between local staff members in the different countries has also helped to establish horizontal ties. These meetings were originally centered on the sales sections of major business units, but since several years ago we have expanded the activity to also include other sections such as technology, IT, and accounting. When the COVID-19 pandemic is over, we will once again invite large numbers of international personnel to Japan and expand networking within our company.

#### Overseas trainee system

In 2019 we picked out the inaugural batch of trainees and sent three young employees on year-long training assignments to the US and China.

Responses from the local companies where they worked were also overwhelmingly positive, and just as we were preparing for the second batch of trainees, we had to suspend the program when COVID-19 pandemic struck in 2020. However, we finalized the first overseas assignments again in 2021 after a year off. Since this is designated to be training, their objectives differ from those of expatriate staff. The chief objective of the trainees is to gain various experiences and take on various challenges in that location. Based on support from local staff, they are directed to think, act, and overcome challenges on their own for a year. After completion, trainees give results presentations both locally and back in Japan.

#### Report from a First Batch Trainee

#### Yuki Narita

(Production Engineering Section, Technical Department, Global Automotive-related Products Division)

My training was in North America, starting in November 2019. In terms of work-related tasks, I learned how important it is to take the initiative to exercise your capabilities and produce results. Particularly in the US, I learned that doing so is

the first step in earning the trust of the local staff. The operational expertise I had gained in Japan was extremely helpful in accomplishing this. Since my language skills were a daily source of frustration, I also studied English on my own every day while I was there. During vacations I was also able to enjoy lots of different experiences in North America such as long-distance road trips around the continent, and visiting a number of different apple orchards. In Japan I will continue working hard so that I can display my capabilities overseas again sometime in the future.

# Personal development

#### Distance learning program

The Distance Learning Program and Qualification Acquisition Support Program are available for employees who are seeking personal development.

In our Distance Learning Program, we make over 100 types of popular courses available each year and return 50% of course fees to learners who complete the courses. Additionally, our Qualification Acquisition Support Program provides assistance such as course fees and incentives for acquiring officially recognized qualifications, based on company rules.



#### English language learning

In addition to lessons for young employees to learn English conversation that they can utilize in business scenarios, this fiscal year we also introduced a new, more practical online English learning platform for all employees to give presentations and have discussions in English. The number of course takers has more than tripled. We also held online social events to boost employee motivation and shared tricks for making a habit out of English learning.

We will continue working to create mechanisms that make

even more employees say, "I want to learn English!"



Online English learning



# Principles and basic policy for safety

#### (1) Safety is the basis of the very existence of the company. (2) All accidents and hazards are preventable. (3) Safety is achieved through the awareness and responsible action of each employee.

Based on the safety principles above, safety is prioritized above all, and this is demonstrated through action. When a risk becomes known, our established practice is to "stop it, call it in, and wait." Our yearly activity plans include activities organized by the Ministry of Health, Labour and Welfare and monthly activities that past disasters have taught us to be of critical importance. We strive to improve the safety, health and disaster prevention levels at all of our locations by conducting repeated training and improving any weaknesses we find in our safety, health and disaster prevention assessments.

**Safety Practitioners Conference** 

(1) Reports on safety, health and disaster prevention activities

(3) Notices and changes in the Industrial Safety and Health Act

2. Education and awareness raising to prevent occupational accidents

(2) Statistics and analysis of disasters in the INOAC Group

1. Summary from the FY 2020 Conference

(1) Efforts to prevent occupational accidents

Locations far away participate online

(1) Explanation on safety, health and

disaster prevention activities

(2) Proposals from the labor union

4. Organizing safety presentations

by outside instructors

3. Policy for FY 2021

in FY 2021

21

#### All INOAC Safety and Health Committee meetings

The following safety activities are led by top management and attended by all members of the company.

O Central Safety and Health Committee meeting: Held four times per year

- © Field inspection by officers: Held twice per year
- O Safety Practitioners Conference: Held six times per year
- O Safety and Health Committee meeting at each location: Held monthly

Through these activities, INOAC enhances company-wide awareness of safety, health, disaster prevention. We hold these

meetings on safety to build organizational culture and prevent the reoccurrence of disasters.



Field safety inspection by top management

Safety Dojo (1,000 employees

have participated)

#### Safety Dojo disaster prevention activities to develop safety-conscious workers

The Safety Dojo lets employees experience potential work hazards in safe settings using 15 simulators that enable the employees to see, hear and feel the hazards. The experience helps build workplaces capable of achieving the zero-disaster standard by making employees more sensitive to potential hazards, training their ability to predict them, and

building habits in safe work practices.

reality (VR) system and brought VR equipment to each location for

#### lower temperature inside plants Organizing learning sessions and trainings by industrial

- physicians and the health insurance association O Taking preventive measures against heatstroke
- Measures to prevent the spread of the novel coronavirus. Implemented a body temperature checking system at
  - entrances
  - Arranged partitions in
- meeting rooms and
- discussion areas • Placed hand sanitizer in pertinent areas

reflecting infrared rays)

road surface temperature by

Heat insulating pavement (reducing



## Body temperature checking system at entrances

# Partitions in discussion areas

# **Disaster prevention activities**

We take action according to our Crisis Management Regulations to minimize damage by natural and other disasters, execute accurate first responses, and ensure early recovery.

#### 1. Large earthquakes

- O Measures to alleviate earthquake damage to buildings and facilities
- O Safety and disaster prevention equipment and stockpiles for earthquakes
- O Post-earthquake response
- O Stockpile of mattresses and other items to contribute to the community

#### 2. Measures against fires, storms, and floods

- O Prevention of fires and explosions in manufacturing facilities
- O Preparedness and systems for dealing with storm
  - and flood damage
- © Establishment of a weather information distribution system

#### 3. Disaster prevention education

O Utilizing the Disaster Prevention Training Center and performing disaster prevention training at worksites



**Disaster Prevention Training Center** 





Safety conference



**Promoting employee health** 

© Establishing mental health and harassment consultation desks

O Taking environmental measures to reduce road surface

temperature and use the Thermax ceiling cover method to

Managers are improving their skills and knowledge so that they can lead by example.

© Establishing outdoor smoking space to ensure separation of smoking areas

# Supply chain management

# (1) Promotion of global procurement activities

We strive to enhance our global procurement utilizing our domestic and overseas locations and strengthen relationships with our valued suppliers.

# (2) Compliance with laws, social codes and internal regulations

We comply with laws, social codes and internal regulations, and promote healthy and open procurement activities.

# (3) Promotion of fair, just and sincere procurement activities

We provide our valued suppliers with fair and just competitive opportunities and act in good faith in our procurement activities.

# (4) Consideration for the environment and human rights in procurement

We conduct procurement with consideration for the earth's environment in accordance with INOAC's environmental policies. Our procurement activities seek to achieve carbon neutrality and a carbon-free society above all. In addition, we give due consideration when dealing with the procurement of raw materials that may cause human rights issues or social problems such as the use of conflict minerals.

# (5) Building partnerships based on trust with our valued suppliers

We construct firm, trusting relationships with our valued suppliers and cooperate with them to maintain and improve each other's technological capability and quality.

# Optimal procurement at our bases across the globe

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We contribute to the countries where our bases are located by procuring local raw materials and components. At the same time, we also aim to build good relations with our valued suppliers taking long-term business relationships and the optimal guality and cost into consideration. Furthermore, we conduct procurement with a higher level of strategy to accommodate our global production operations.

Communication with society

# Strengthening partnerships with our valued suppliers

Together with approximately 80 valued suppliers we formed the INOAC Cooperative Assembly, where we engage in various activities. We invite representative speakers from our valued suppliers to give presentations for our entire group of companies about their activities to raise awareness about compliance and risk management at speaking engagements, and about the work that goes on in their subcommittees. In this way, we strive to mutually raise the levels of all participating companies.



# **Green procurement**

Company profile

In order to keep up with environmental regulations that become stricter every year, we revise the INOAC Green Procurement Criteria on a yearly basis and engage in procurement activities that are environmentally conscious. In addition, we are also working to reduce our environmental impact, such as by looking for ways to enhance loading efficiency as a means to improve procurement logistics.

# Achieve carbon neutrality and a carbon-free society

As measures to combat global warming which grows worse each year, we engage in procurement activities seek to achieve carbon neutrality and a carbon-free society, and strive to reduce our CO<sub>2</sub> emissions.

# **Conflict minerals**

The Democratic Republic of Congo has one of the world's richest total deposits of mineral resources. However, it is also a region-along with neighboring countries-embroiled in ceaseless warfare. Minerals produced in this region become a source of funding for organizations involved in human rights violations, environmental destruction, corruption and illegal activities. Our policy is to not use such conflict minerals, and we are working with each of our business partners to disclose relevant information.

## Governance

# Our basic view on corporate governance

INOAC considers the improvement of corporate governance to be an important management task in order to raise the group's performance, value and social credibility.

#### Corporate governance structure (organizational structure)



# Corporate governance structure

#### Board of Directors

Comprised of 10 members, the Board of Directors decides important issues in INOAC's business. Each board member reports the execution, financial and performance statuses of his/her division, based on which the Board supervises and controls the business execution of the company.

#### Executive officer system

In order to separate supervisory and executional responsibilities, INOAC has introduced an executive officer system. Each executive officer, endowed with his/her own authority from the Board, acts as the head of the department, group company or major functional organization to speed up decision-making, optimize business operations and handle critical business execution.

#### Board of Auditors

The Board of Auditors is composed of three company auditors including two external auditors. The company auditors attend important meetings, such as board meetings, and audit the execution of duties by the directors by inquiring about the status of their business operations.

# **Internal Control System**

Various measures are implemented to ensure that we comply with applicable laws as well as the company's articles of incorporation in our business execution.

#### Compliance

All employees are educated on our system for promoting compliance and our Corporate Code of Conduct.

#### Information management

Documents are managed by the Document Control Procedure that defines the responsible department/section and storage period for each document.

#### Control structure as a corporate group

Governance rules for associated companies are established for associated and affiliated companies. Rules for business operations are also clarified along with audits conducted by company auditors when necessary.

## Risk management

The Executive Management Committee manages each risk and Crisis Management Committee meetings are held when necessary. The Negative Information Hotline is always ready to quickly obtain information about risk and provide a structured response.

# **Basic views on compliance**

INOAC believes that the compliance requirement goes beyond simply following the applicable laws and requires each employee to act with a high level of ethics. In order for INOAC to satisfy its corporate responsibilities and expectations from customers, it is not enough to simply follow the applicable laws. Employees must also recognize their social responsibilities as part of the corporation.

# **Compliance education**

In addition to establishing internal regulations, an educational program aimed to raise awareness on compliance is provided to sales representatives, staff in charge of procurement, new employees and mid-career hires at all INOAC business locations. The educational program looks at examples of compliance violations that have occurred at other companies and conducts case studies on how such issues could occur in one's own workplace. The program also holds discussions on questions about matters requiring clarification which arise in day-to-day work operations. Through these efforts, we are working to raise each individual's awareness of compliance.

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# Internal reporting system

Communication with society Producing an employee-friendly workplace

In order to thoroughly enforce compliance, the company must be ready to act immediately in the event of any compliance-related violation. To this end, INOAC has established the Help Line through which anyone may consult directly with both the Legal Affairs Department and an external law firm about their concerns. Internal Reporting and Whistleblower Protection Regulations have also separately been established to protect whistleblowers from any form of retaliation.

# **Compliance and Ethics Program**

The Compliance and Ethics Program has been implemented, and a Compliance Office has been established within the Tokyo Head Office. We have appointed a Chief Compliance Officer (CCO) to lead the Compliance Office and Compliance Officers for each jurisdiction and business location in Japan and overseas. In addition to establishing internal regulations, we are also creating systems to raise employee awareness toward compliance.

# **Internal audits**

Field audits are conducted at each section and domestic group company covering aspects such as compliance, risk management and observance of laws. Areas that are deemed in need of improvement by the results of field audits are tracked regularly to raise the governance standards of the INOAC Group as a whole.

# **Negative Information Hotline**

The Negative Information Hotline (consultation line) has been established for employees to report not only compliance issues, but also any issues regarding product quality, safety, the environment, sales, procurement and more. When such issues arise, the company will be able to respond immediately and take measures to keep problems from spreading.



#### Governance & compliance

# Applicability of report

	Reporting period		This report was prepared based on the business activities of INOAC Corporation during FY 2020 (January 1 - December 31, 2020).
			* Also includes some information from FY 2019 and before, and from FY 2021.
	Applicable scope		The business activities of INOAC Corporation on a non-consolidated basis, including certain domestic and overseas companies of the INOAC Group.
	Year & month issued		November 2021

| Guidelines for reference | © Environmental Reporting Guidelines FY 2018 Edition © ISO26000



Inquiries

# **INOAC CORPORATION**

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