

Residential Business

Proposing comfortable lifestyles, starting with windows and doors

With a focus on the "APW" window brand, we propose comfortable lifestyles with entrance doors and window products that offer enhanced thermal insulation performance and safety. We aim to build a society that is friendly to both houses and people by providing high-performance window and door products that also meet the needs of home builders and residential equipment companies.

Main products

- ◎ Windows
- ◎ Entrance doors/sliding doors
- ◎ Interior doors/partitions
- ◎ Window shutters
- ◎ Remodeling windows/doors
- ◎ Quake-resistance retrofitting
- ◎ Window and door products for home builders (prefabrication)
- ◎ Doorways and windows for modular bathrooms



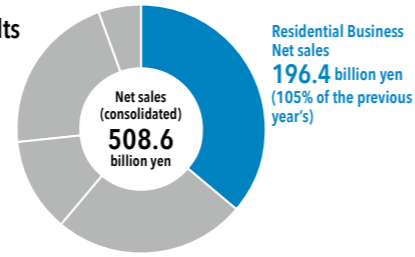
Our strengths

- A wide variety of high thermal insulation windows for healthy and comfortable living
- Disaster prevention and mitigation products with a focus on safety and security that support the building of earthquake- and typhoon-resistant homes
- An enhanced lineup of products for remodeling windows and doors in the private areas of condominiums and single family homes
- Use of account management to provide business partner-specific product proposals

Market environment and social issues

Although the number of new housing starts in Japan has been decreasing year by year, demand for high thermal insulation window and door products has been increasing due to the establishment of new higher insulation performance grades under the Housing Performance Indicator System. In addition, demand for remodeling of windows and doors is also growing as a result of government subsidy programs. In terms of addressing social issues, in order to realize a carbon-neutral society by 2050, we will reduce CO₂ emissions throughout the product life cycle, develop recyclable materials, and pursue product development that makes use of recycled materials. In addition, to address the problem of vacant houses, we will work to increase the value of stock housing. In the home builders (prefabrication) sector, we will respond to growing needs for ZEHs, safety and security, and disaster prevention awareness.

FY2022 results



The situation in FY2022

As a result of our policy of "increasing thermal insulation performance of windows and doors," centered on vinyl windows, net sales of vinyl windows were 104% of the previous year's. In particular, the sales volume of APW 430 high-performance triple-glazed vinyl windows was 107% of the previous year's, driving the trend toward high thermal insulation products. The rate of vinyl windows to the total number of windows sold for single family homes in Japan is 31%, and the combined rate of vinyl windows and aluminum-vinyl composite windows is 75%, indicating a shift toward higher thermal insulation. Net sales of the three main products in the window and door remodeling business were around 110-120% of the previous year's, with strong sales due in part to increased demand driven by government subsidy programs. In the home builders (prefabrication) sector, contracts for single family homes slowed down due to soaring material prices, but contracts for multi-family residences stayed firm due to continued low interest rates. New orders for high thermal insulation composite windows also contributed to net sales standing at 101% of the previous year's figures. In the modular bathroom sector, sales were 110% of the previous year's, supported by market share expansion and demand for remodeling.

Future strategies

As more attention is paid to the energy-saving performance of homes as a means of realizing a carbon-free society, and in response to the growing demand for vinyl windows, we plan to increase the rate of high thermal insulation windows to 84% in FY2023. In terms of product development, we will strengthen products that offer energy saving and disaster prevention/mitigation, as well as value proposals and high-value-added products with advanced functions such as the "M30 Facial Recognition Automatic Door." In addition, alongside housing providers nationwide, we contribute to the creation of quality homes in the stock housing market through performance-enhancing renovations. In order to meet an increasingly diverse range of needs, we will also promote collaboration among production, sales, and technologies, and strengthen our product appeal. In the home builder (prefabrication) sector, we will work to improve business partner and customer satisfaction by evolving our products, such as aluminum-vinyl composite windows. In the modular bathroom sector, we are working to further evolve existing bathroom doorway products, as well as products for non-residential properties and condominium renovations.

Main initiatives

Promoting high thermal insulation windows and further strengthening vinyl window production capacity

The standards for insulation performance in the Housing Performance Indicator System have been revised, with new higher grades, 5, 6, and 7, established starting in FY2022. In response to this, and in light of the demand for more energy-efficient housing, we are strengthening our production system for vinyl windows as well as promoting the use of high thermal insulation windows. In August 2022, a new APW 330 non fire-resistant vinyl window production line was added to the Namerikawa Plant (Namerikawa City, Toyama Prefecture), and in September the same year, a APW 430 non fire-resistant vinyl window production line was added to the Tohoku Plant MADDO (Window) Factory (Osaki City, Miyagi Prefecture). Building on a supply system designed to meet demand in the area, we are making further efforts to strengthen our vinyl window production capacity.



Namerikawa Plant (above) and Tohoku Plant (below), where production lines have been expanded.

Launch of the "Association of Regional Home Builders Engaged in Building High-Performance Homes with Vinyl Windows"

In August 2022, we launched the "Association of Regional Home Builders Engaged in Building High-Performance Homes with Vinyl Windows," a group of Regional Home Builders across Japan that build high-performance homes using the APW vinyl window series and meet thermal insulation performance grades 5, 6, or 7. Regional Home Builders that have enrolled in the association are listed on the official YKK AP website as "APW Authorized Home Builders," and the status of their compliance with the new higher grades is shown. The site is being used to help find high thermal insulation-focused builders who use the APW series of vinyl windows as standard.



Strengthening production capacity for inner windows in response to the 3-ministry subsidy scheme Expansion also underway in sales channels and installers

In order to meet the demand for window remodeling under the "Housing Energy Conservation 2023 Campaign," a subsidy scheme jointly undertaken by the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Economy, Trade and Industry, and the Ministry of the Environment to help achieve carbon neutrality by 2050, we are enhancing our production capacity for inner windows. By enhancing the production line through changes in alternating work shifts and increases in personnel and equipment capacity, production capacity has increased three-fold. In addition, we have a dedicated sales representative at each of our sites to promote national policies, conduct awareness-raising activities, and expand our sales channels. In addition to expanding the number of installers at architectural product distributors and training them, we are also expanding our scope to include other industries and carpenters, as well as promoting the "creation of installers" by packaging installation training programs.



Mado Remo - PLAMADO U Inner Window

Commercial Business

Creating beautiful and functional urban spaces

Through the exterior design of office buildings and condominiums, and by responding to the need for high thermal insulation performance and added value that contributes to decarbonization, we are helping to shape urban landscapes. Moreover, through business development based on business models tailored to individual countries and regions, we also provide facade systems that are optimized to meet specific applications and needs.

Main products

- ◎ Commercial windows
- ◎ Curtain walls (custom and standard)
- ◎ Commercial entrances
- ◎ Windows and doors for multi-family residences
- ◎ Remodeling products



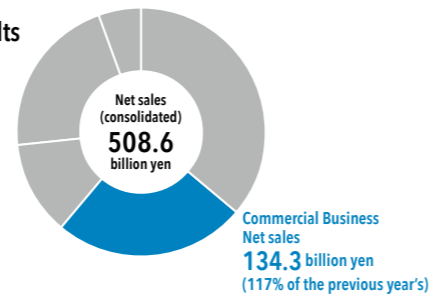
Our strengths

- Strong product appeal long recognized by users
- Sales capabilities provided by a nationwide network and proposal capabilities to make highly complex facades a reality
- Technical capabilities that enable us to handle high-difficulty properties and solve problems in building exteriors as the situation demands
- A flexible production system with global manufacturing sites

Market environment and social issues

In the new construction sector, multi-family residences are expected to decline due to the declining birthrate and aging population, while non-residential properties are expected to decline slightly going forward, despite the recovery from the COVID-19 pandemic. On the other hand, the renovation sector is expected to remain strong, as the number of stock multi-family residences more than 35 years old and due for renovation is increasing, while in non-residential properties, educational facilities will peak in the next 10 years due to the extended service lives of schools. In the field of large-scale, highly complex facades, demand for "green facades" to produce green building walls, as well for renovations, is expected to increase in Japan and other developed countries, while in emerging countries, demand for new construction is expected to grow as a result of ongoing urbanization. Social issues include rapid changes in the market due to soaring material prices, labor shortages due to the aging of skilled workers, and the need to address carbon neutrality and decarbonization. To solve these issues, we are working to shorten installation periods, improve productivity, save labor, and reduce CO₂ emissions over the entire lifecycle of a building.

FY2022 results



The situation in FY2022

In the new construction sector, we strengthened our customer contact points by reinforcing our sales development system, and in the renovation sector, we stepped up proposals for service life-extension renovations, especially for non-residential educational facilities. In addition to real-world proposals at "AZ five TOKYO" and "PROPOSAL 8th," we have enhanced our remote proposals through such methods as LIVE presentations, 360-degree VR, and web exhibitions. These efforts resulted in strong orders, and overall net sales in the commercial business were 117% of the previous year's level.

Future strategies

We are focusing on strengthening in the Tokyo metropolitan area and enhancing remodeling projects. As a measure to strengthen in the Tokyo metropolitan area, the manufacturing and supply system for this region will be reorganized at the new Saitama Factory building, which will start operation in July 2023. We will strive to improve our services by increasing productivity and further shortening lead times. For sales measures, we will further strengthen our sales development system and customer contact points. In terms of product measures, we will launch aluminum-vinyl composite windows in September 2024 and gradually expand them in order to achieve greater levels of high thermal insulation performance in buildings. In addition, we are developing "unitized CWs for mid-rise buildings" as a high value-added product, and will work to create, promote, and expand the market by emphasizing quality and labor-saving features. To enhance our efforts in the renovation sector, we will use various subsidy schemes to promote the creation of a market for large-scale remodeling of multi-family residences. Furthermore, based on our track record of safely and reliably providing large-scale, highly complex facades and our technical capabilities, we will use "unitized CWs for super high-rise buildings" as a focal point for stepping up our domestic and overseas operations, while also expanding our human resources and manufacturing sites. In the latter half of the 6th Mid-term Management Plan, we will promote the establishment of a global supply chain system and infrastructure, starting with enhancing CW supply in Asia.

Main initiatives

New building begins operations at the Saitama Factory, reorganization of the manufacturing and supply system

We acquired a site adjacent to the Saitama Factory (Misato Town, Saitama Prefecture) and constructed a new building as a manufacturing site for aluminum architectural products for commercial buildings. The groundbreaking ceremony was held in June 2022, the completion ceremony in May 2023, and operations began in July 2023. Making this the core plant for our Commercial Business, we then reorganized our manufacturing and supply system to increase our competitiveness in the Tokyo metropolitan area and other areas in eastern Japan. By consolidating production with more efficient equipment provided by the Machinery & Engineering Department, expanding automated processes, and establishing production lines linked to data, the new plant will reduce manufacturing costs by 25% relative to our existing factories. In addition, through measures including logistics reforms such as unit loading, the lead time from order placement to delivery will be reduced by 6 to 11 days.

Based on the concept of "a factory fulfilling to work in," the building will reduce CO₂ emissions by 30% through the use of a high thermal insulation outer skin, windows with excellent thermal insulation performance and ventilation, dimmer-equipped lighting, and high-efficiency air conditioning.

Furthermore, solar power generation and the procurement of renewable energy will enable it to achieve CO₂ emissions of effectively zero. Moreover, through the use of rainwater, we aim to make this a factory friendly to both the global environment and its workers. Other facilities include a rest area, open to the public as a place for neighborhood residents to relax, established on part of the site.



Saitama Factory new building

Established a "Global Curtain Wall Business Division" to enhance cost competitiveness and expand sales

In April 2023, the Global Curtain Wall Business Division was established with the aim of strengthening the curtain wall business in Japan and overseas, taking as its focal point "unitized CWs," in which glass and panels are integrated and unitized at our plants and factories. Our goal is to accelerate business development by enhancing our expertise in manufacturing, sales, and engineering, creating global opportunities for our employees and CDPs for our engineers. As well as enhancing our operations by horizontally deploying collaborative know-how, we aim to grow our business by expanding and optimizing our human resources and manufacturing sites.

This will serve to strengthen cost competitiveness and expand sales of unitized CWs in the High Rise Building Division, which serves the Japanese market, as well as in overseas companies. In addition to strengthening operations by

horizontally deploying the know-how cultivated in the CW business, we will expand and optimize our resources, including human resources, manufacturing sites, and suppliers. We will first focus on strengthening operations and business growth in Japan and the rest of Asia, with a view to expanding into North America and Europe in the medium term.



Installation of a unitized CW in progress

Strengthening proposal capabilities, appeal, and target products to expand the commercial building renovation market

In the commercial building renovation market, we will create demand for large-scale remodeling by strengthening proposals for windows and entrance doors for the growing stock of multi-family residences over 35 years old and due for renovation, as well as by actively taking advantage of various subsidy schemes. Meanwhile, we will also sustain and enhance our proposals for service life-extension renovations for non-residential educational facilities. In terms of measures to strengthen our products, we

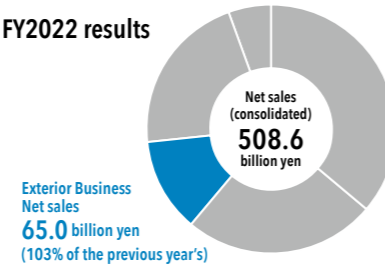
will expand our "APSWORD NEO-LB" aluminum-vinyl composite windows for low-rise buildings, which use the "GRAF installation method" exclusively for renovations, in September 2023. This will be followed from FY2024 onward by the launch of new aluminum-vinyl composite windows that can be used for mid- and high-rise buildings. In so doing, we aim to promote and intensify the conversion of commercial buildings to high thermal insulation performance in the renovation sector too.

Exterior Business

Proposing spaces that make living more comfortable

We will create new value by deploying products that unite "house" and "garden." We offer exterior products that allow total coordination of the premises to suit the customer's lifestyle.

FY2022 results



Main products

- ◎Balconies
- ◎Carports
- ◎Gates & fences
- ◎Terraces
- ◎Exterior materials

Our strengths

- Fully coordinated proposal capability for buildings and exteriors
- Creating markets through proposal-based products for comfort in buildings and exteriors and garden space
- Ensuring ease of selection through the development of a product system for luxury, mid-range, and regular product types

Market environment and social issues

The wall exterior market has been particularly sluggish due to a decline in new housing starts and rising construction costs resulting from soaring material prices, and the effects of these rising material prices have been reflected in surging commodity prices and reduced budgets for building exteriors. Responding to social issues requires product development and production systems for a carbon-neutral society, product development that supports disaster prevention and mitigation and easy installation, and assurance of sustainable product quality.

Main initiatives

Opening of new exterior exhibition space

The YKK AP Exterior Exhibition Hall was opened in August 2022 in the YKK60 Building (Sumida-ku, Tokyo). The permanent exhibition features a lineup of exterior products such as gates, fences, carports, and so on, presented on a full-size building, allowing professional users such as exterior sales and installation companies to see the actual products and learn about their structures, functions, and other key selling points. As such, it serves as a base for making proposals to professional users.



YKK AP Exterior Exhibition Hall

FY2022 Business overview and future strategies

In FY2022, the wall exterior market declined due to a drop in new housing starts and the impact of soaring material prices, yen depreciation, as well as rising consumer costs resulting from increased economic activity and market recovery. However, sales of exterior products such as gates and fences remained strong due to the strengthening of fully coordinated proposals including windows and doors and of cityscape proposals focused on homes built for sale. In addition, demand for folded-plate roof carports, which are designed to resist wind pressure and snow buildup, expanded to include non-snowy regions, and net sales exceeded market conditions to reach 103% of the previous year's level.

The exterior business will continue strengthening its organization and systems corresponding to sales channels, based on a policy of "boosting sales by providing fully coordinated proposals for buildings and exteriors." In the fields of new construction, exterior construction, and remodeling, we will thoroughly bolster existing sales channels and strengthen sales. For custom-built residential homes, we will offer value-added proposals through all-inclusive building and exterior designs, and for homes built for sale, we will promote proposals that integrate buildings and exteriors into a unified cityscape. We will also further strengthen our supply system and production site system to expand our business.

Industrial Products Business

Supporting the industrial sector with aluminum profiles

We provide high-quality extruded aluminum based on our knowledge of materials, profile designs, extrusion molding, surface treatment, processing, etc., and the advanced technology capabilities we have developed in the manufacturing of aluminum building materials.



Main products

- ◎Components for machinery equipment
- ◎Auto parts
- ◎Architectural components
- ◎Sustainable products

Our strengths

- Integrated production from casting, extrusion to surface treatment at four manufacturing sites in Japan
- Ownership of large 14-inch (6,500 tons) and 10-inch (4,000 tons) extruders

Market environment and social issues

In terms of demand in the construction sector, we forecast that conditions will remain difficult due to the significant impact of the sluggish growth in new housing starts. Demand in the automotive sector is expected to recover as the shortage of semiconductors moves toward resolution, although there is a sense of uncertainty due to the impact of the global political situation. Social issues include the need to reduce greenhouse gas emissions in aluminum production and raw material procurement in order to realize a carbon neutral society by 2050, and to address the high dependence on overseas resources, the price and supply of which are heavily influenced by global conditions.

FY2022 Business overview and future strategies

The aluminum extrusion market continued to face challenging conditions, with the number of new housing starts remaining weak and the automotive and other industries continuing to experience difficulties in procuring parts, resulting in a full year of lower sales than in the previous year. Given these conditions, we were successful in expanding our sales share, leading to year-on-year sales growth, especially in our core sector of construction. Net sales were 122% of the previous year's level, due in part to the impact of higher aluminum ingot prices.

With no significant growth in underlying demand for construction expected in the future, we aim to expand our business as the manufacturer of choice through proposals that lead to the sustainable growth of our business partners. For the automotive sector, we forecast significant growth in line with the growing demand for electric vehicles going forward. Since this is a field that requires advanced technology, we aim for further growth by reliably meeting the needs of our customers alongside our highly specialized engineers and manufacturing staff. To realize these growth strategies, we will also continue to develop human resources capable of providing value to our business partners and society.

Overseas AP Business

Operating businesses rooted in individual countries and regions

The requirements for architectural products such as windows, doors, and curtain walls differ from country to country and region to region due to varying climates, cultures, and other factors. Since establishing our first overseas company in Singapore in 1976, we have expanded our business to 11 countries and regions, meeting the needs of each through locally based business operations.

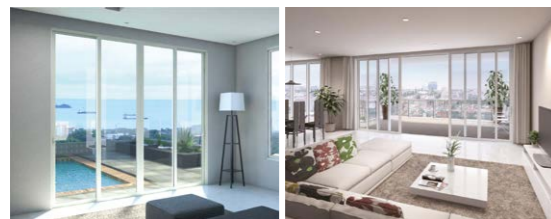
Our strengths

- Global operations in 11 countries and regions, primarily in North America, China, and Asia
- Product development tailored to the climate and culture of the countries and regions in which we operate, combined with local manufacturing and sales systems
- A system for providing technical and manufacturing support from Japan

Market environment and social issues

Growth in the North American commercial building market is slowing, and new housing starts continue to weaken due to government interest rate hikes and other factors. However, the Chinese real estate market (luxury market) is recovering due to easing of regulations, a measure to break out of the prolonged recession in housing. Taiwan's housing market is shrinking, but Indonesia's has remained strong.

In terms of addressing social issues, we will contribute to the reduction of CO₂ emissions through high thermal insulation products such as StyleView® in the U.S.A. and the LD Series in China. In addition, we will help mitigate against wind and flood damage through high water-tightness and disaster prevention/mitigation products such as the YRB Series in Taiwan, NEXSTA in Indonesia, and IWIN-S in India. In addition, our easy-installation products will help address shrinking labor forces, and our ventilation products will help create healthy and comfortable living spaces.

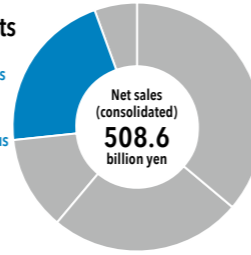


"NEXSTA"

"IWIN-S"

FY2022 results

Overseas AP Business
Net sales
115.8 billion yen
(145% of the previous year's)



The situation in FY2022

Sales of commercial architectural products in the U.S.A. were strong on the East Coast, and efforts were undertaken to strengthen our services in the Midwest and West. To support increased sales of residential architectural products we have begun construction of a new plant with an integrated production system, which is scheduled to start operation in January 2024. In terms of domestic demand in China, sales increased due to the development of new customers through the introduction of mid-price range housing market products and the expansion of remodeling channels. In Taiwan, sales were strong in the luxury residence market, and efforts were also made to develop the central and southern areas. In Indonesia, sales increased due to the development of new channels and the introduction of new products. In India, sales also increased significantly due to the strengthening of the supply system for profiles, reaching a record high. As a result of these efforts, the overseas AP business as a whole achieved an increase in both revenues and profits, and the proportion of net sales accounted for by overseas sales grew from 14% to 17%.

Future strategies

In order to further expand our business, we will strengthen both our product appeal and our manufacturing and supply system by introducing new products in our existing businesses. By expanding sales channels/areas in conjunction with this, we aim to achieve stable growth. In addition, we will proactively and flexibly develop new businesses and new markets. Meanwhile, in terms of the overseas AP business as a whole, we will advance the development of human resources to support the business and strengthen our response to sustainability issues. We will also further strengthen cooperation between related divisions in Japan and overseas companies, and work to evolve a business model appropriate to each country and region in terms of sales, products, manufacturing/supply, and management administration. By combining the collective wisdom of all our divisions, both in Japan and overseas, and by speeding up the execution of our business, we will grow the overseas AP business into the core business of YKK AP.

Main initiatives

Construction of a new plant for residential vinyl windows in the U.S.A. Productivity to grow to 212% of the previous level

YKK AP AMERICA INC. is building a new plant for residential vinyl windows on a site it acquired in Macon-Bibb County, Georgia. The purpose of this construction is to increase sales of residential vinyl windows in its sales area of six southern states in the U.S.A. to strengthen production and supply capabilities, and build a production and supply system with a competitive market advantage, thereby establishing an integrated production system from vinyl materials to assembly. Automation technology, which has been adopted in Japan for the APW Line for the production of vinyl windows, will be rolled out in the new plant to increase productivity to 212% of the previous level. What is more, the building also reduces CO₂ emissions by improving energy efficiency through natural lighting and thermal insulation of its roofs and walls. In addition, we are considering the phased introduction of energy creation technologies in order to achieve carbon neutrality. Automation and manpower reduction for work involving heavy loads within the production line, as well as during the

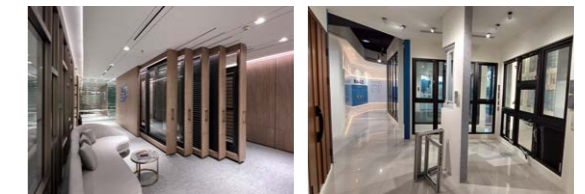
warehousing and shipment processes, will also be carried out to create an environment that is friendly to workers. YKK AP's manufacturing functions in Macon, which are currently dispersed over two locations, are scheduled to be transferred to the new plant after it begins operations in January 2024.



Conceptual diagram of YKK AP AMERICA INC.'s new plant

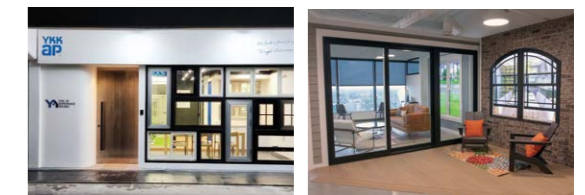
Strengthening the presence of showrooms in each location to create business opportunities

We are expanding showrooms around the world as bases for introducing our products to a wider audience. In FY2022, we renovated our showrooms in Bangkok (Thailand), Kaohsiung (Taiwan), and Jakarta (Indonesia), and in FY2023, we renovated our showroom in Atlanta (U.S.A.). In Indonesia, YKK AP Experience Studio, a showroom for end-users, primarily custom-built home owners, opened in December 2022, attached to the Jakarta sales office, which was relocated to central Jakarta. It has six exhibition spaces, including a water-tightness performance experience area. By creating further business opportunities, we will contribute to increasing the value of buildings in many different regions.



Bangkok

Kaohsiung



Jakarta

Atlanta

Completion of the CapitaSpring super high-rise facility in Singapore

CapitaSpring, a large-scale, super high-rise mixed-use facility in the heart of Singapore, with an exterior built by YKK AP FACADE PTE. LTD., was completed in February 2022. The 280-meter-high, 51-story building has an striking facade that weaves organic curved shapes and greenery from plantings into the straight, inorganic exterior surfaces. In addition, by creating green spaces throughout the building, it has obtained a Platinum rating, the highest level of the BCA Green Mark, which is the leading environmental performance index for buildings

in Singapore. Design, procurement, installation, and quality control took place during the COVID-19 pandemic, when there was a shortage of personnel on site and government mandated safety control measures had to be met.

