

Safety Improvement and Stable Supply of Products

》 Philosophy and Basic Policy on Product Safety (see P. 87)

Product Safety Management Promotion System



* Nippon Paper Industries, Nippon Paper Crecia, Nippon Paper Papyrus, Kokuei Paper, Nippon Paper Lumber, Daishowa Uniboard, Nippon Seitai, Kyoei Seitai, NP Trading, Flowric, Opal, Jujo Thermal, Siam Nippon Industrial Paper, Dyna Wave Holding Asia, Akita Jujo Chemicals (As of June 30, 2022)

- The Group complies with laws, regulations, etc. in Japan and overseas, and strives to ensure product safety using management methods appropriate to each business or product.
- The Nippon Paper Group Product Safety Subcommittee exchanges information and opinions related to product safety among Group companies, discusses countermeasures if there are any concerns and reports to the Nippon Paper Group Product Safety Committee.
- Product Safety Committees or similar organizations have been established at each Group company to promote product safety activities.

Approach toward Product Safety

- The Group operates a broad range of businesses including package, household paper, healthcare, and chemicals businesses, in addition to paper and paperboard businesses.
- The Group ensures, and reviews as necessary, the product safety by managing businesses and products according to their characteristics, in accordance with laws, regulations, etc. including the Food Sanitation Act and the Act on Securing Quality, Efficacy and Safety of Products Including Pharmaceuticals and Medical Devices (Pharmaceutical and Medical Device Act).
- With regard to food-related products, the Group engages in management in accordance with legal regulations on food safety, management systems and standards, and acquires certifications such as FSSC 22000 as necessary.

FSSC 22000 Certification Status (as of March 31, 2022)

Company Name	Mill, Operating Division
Nippon Paper Industries	Gotsu Mill*1
Nippon Paper Liquid Package Product	Egawa Mill, Ishioka Mill, Miki Mill
Opal	Acquired at seven locations
Nippon Dynawave Packaging*2	

*1 CMC (carboxymethyl cellulose), cellulose powder, stevia and licorice sweeteners (all for use in food)

*2 Acquired certification for the manufacture of liquid packaging boards

ISO 22000 Certification Status (as of March 31, 2022)

Company Name	Mill, Operating Division
Nippon Paper Papyrus	Kochi Mill*
Opal	Opal Cartons NZ Christchurch
Jujo Thermal	Kaattua

* Production of liquid filter papers and food packaging papers that come into direct contact with food

Akita Prefecture HACCP Certification Status (as of March 31, 2022)

Company Name	Mill, Operating Division
Akita Jujo Chemicals	Headquarters factory

Halal Certification*¹ Status (as of March 31, 2022)

Company Name	Mill, Operating Division
Nippon Paper Industries	Gotsu Mill* ²

*1 Halal certification is presented for products that, upon inspection of raw materials, production processes, ingredient and product storage conditions, and other matters, have been determined to be in keeping with Islamic law. Products exported to Islamic countries should be Halal certified.

*2 Certification obtained for the nucleic acid (RNA-M), dissolving pulp and CMC (carboxymethyl cellulose)

— Response to the Positive List System for Food Product Utensils, Containers, and Packaging

- Food product utensils, containers, and packaging (made of synthetic resin) of the Group, as well as base paper for them, are in conformance with the Positive List System (which allows only substances that have been evaluated as safe; “PL System”) for synthetic resins stipulated by the Food Sanitation Act.
- Introduction of a PL System for paper and paperboard is also under consideration, and the Group is preparing to respond.

Quality Management Initiatives

Each Nippon Paper Group company works to acquire ISO 9001 international quality management standard certification as necessary and has established a system for quality management suited to the characteristics of its products to ensure, and review from time to time, maintaining required quality.

ISO 9001 Certification Status (as of March 31, 2022)

Company Name	Mill, Operating Division
Nippon Paper Industries	Shiraoi Mill* ¹ , Akita Mill, Nakoso Mill* ² , Kanto Mill, Fuji Mill Yoshinaga, Gotsu Mill* ³ , Otake Mill, Iwakuni Mill* ⁴ , Chemical Sales Division Higashimatsuyama Mill
Nippon Paper Industries CNF-related* ⁵	Research and Development Division's Fuji Innovative Materials Research Laboratory, Ishinomaki Mill's Cellulose Nanofiber Development Section, Biomass Material Business Division's Biomass Materials Sales Promotion Department
Nippon Paper Crecia	Tokyo Mill
Nippon Paper Papylia	Harada Mill, Suita Mill, Kochi Mill
Nippon Seitai	Hokkaido Office, Maebashi Mill, Saitama Mill, Kansai Office
Kyouei Seitai	
NIPPON PAPER UNITEC	Five head office sites at headquarters (plant engineering/electricity/control systems/mechatronics/construction)
Nippon Paper Ishinomaki Technology	Headquarters
GAC	Headquarters/Mill, Marketing Division
Flowric	Headquarters, Concrete Research Center, Nagoya Mill
N&E	Head Office Plant
Opal	28 locations certified
Jujo Thermal	Kauttua
Siam Nippon Industrial Paper	
Nippon Dynawave Packaging	
TS Plastics	

*1 Certified for pulp and 10 machines for the production of base paper for food, and cellulose powder.

*2 Certified for the production of non-carbon paper, thermal paper, ink-jet paper and other business communication papers

*3 Certified for the production of CMC, cellulose powder, nucleic acid and yeast

*4 Chemical Production Department is certified

*5 Obtained certification for the design, development, and manufacturing of TEMPO-oxidized pulp, TEMPO-oxidized metal supported pulp, TEMPO-oxidized CNF, and CNF-reinforced resin businesses

— Quality Audits at Companies Making Paper Containers for Liquids

The Paper-Pak Sales Division of the Company implements the following initiatives at the business locations of Nippon Paper Liquid Package Product, which are production bases:

- ▶ Provide quality and technical support as needed
- ▶ Conduct on-site quality meetings and audits of product safety and hygiene on an annual basis

— Paper and Paperboard Business Quality Assurance Initiatives

The paper and paperboard business of the Company implements the following initiatives for quality assurance:

- ▶ Assign technical experts to each sales division of the paper and paperboard business to listen directly to customers' needs and wants
- ▶ Make use of internal database, etc. which links production, sales, and technical departments to share necessary information among all personnel who are engaged in quality management
- ▶ The Risk Management Department, which is not a quality management department, audits the operational status of the above to confirm its proper operation.

— Responding to Instances of Defective Products

The Group has put a management system in place to prevent product defects, and also has prepared responsive measures just in case any product defects do occur.

< Example: Paper and Paperboard Business of Nippon Paper Industries >

- ▶ Establish reporting lines in case of a defect and launch an emergency organization as necessary
- ▶ Ensure traceability
- ▶ Take out product liability insurance (PL insurance) for main products
- ▶ Implement countermeasures horizontally to prevent similar defects

— Initiatives toward Guaranteeing Wastepaper Pulp Blending Ratios, etc.

The Company has established respective systems to manage percentages of wastepaper pulp content in its products, certified forests, and the use of its products made with wood from forest thinning, among other things, in order to meet requirements of customers.

- ▶ At the head office, procedures have been established and followed for identification of brands subject to management, issuance of certificates, etc.
- ▶ The Company manages production procedures at each of the Group's mills, based on the ISO 14001 environmental management system.
- ▶ Operational management of the foregoing is confirmed through internal and external audits, and each department makes revisions as necessary.

The Stable Supply of Products

The Group is implementing the following initiatives to ensure stable supply of products:

- ▶ To provide customers with the necessary supply at the necessary time, the Group works to secure stable raw materials supply and systematically develops and updates production facilities.
- ▶ Sales departments and production units coordinate on developing flexible and lean production plans and manage inventories appropriately.
- ▶ In December 2020, the Group established business continuity management (BCM) standards in the event that it becomes difficult to carry out normal business due to large-scale disasters, infectious diseases, etc. Each department then formulates business continuity plans (BCPs) based on those standards and revises them as necessary.

CASE STUDY

Establishment of a System to Respond to Earthquakes and Other Disasters (Nippon Paper Industries)

In the event of damage to production equipment and facilities as a result of a major disaster, the Newsprint Sales Division of the Company has a system in place to follow the emergency response guidelines established by the Japan Paper Association's Newsprint Committee to maintain the smooth supply of newsprint.

CASE STUDY

Development and Introduction of "e-musen junkai®" (e-wireless patrol) System (Nippon Paper Industries, NIPPON PAPER UNITEC, and Sakurai)

In the past, signs of abnormalities in equipment have been discovered mainly by people patrolling production facilities. With the e-wireless patrol system, IoT technology is used to accumulate temperature and vibration acceleration data on equipment in operation, enabling the monitoring of trends in these numerical data. This helps to prevent equipment problems and stabilizes operations (see P. 41).

The Company is installing the e-wireless patrol system at all of the mills in Japan and selling it to companies outside the Group. The Company sells the system in Thailand as well.



"e-musen junkai" (e-wireless patrol) system webpage (Sales company: Sakurai) (Japanese only):
<https://www.sakurai.co.jp/landing/e-musen/index.html>

Responses to Changes in the Social Environment

Identifying Customers' Needs

Nippon Paper Group engages in proactive communication to identify customer needs across a wide range of areas, from day-to-day sales activities to quality patrols by engineering staff.

- ▶ Respond to customers engaged in CSR procurement *1 with questionnaires and other materials concerning our CSR initiatives
- ▶ Be registered as a supplier with a global platform for disclosure of information relating to CSR procurement
 - EcoVadis (Nippon Paper Industries): Registered in 2016, and won a Gold Medal in 2021
 - Sedex (Nippon Paper Liquid Package Product Egawa Mill): Registered in 2019, and undergone SMETA audits of its CSR assessments
- ▶ Accepting factory tours*2 and inspections
- ▶ Holding technical lectures for customers (Nippon Paper Industries)
 - Conducting technical lectures “Paper-Pak School” for customers in charge of filling machines at dairy and beverage companies in the Technical Center of Nippon Paper Liquid Package Product (in Gokamachi, Ibaraki Prefecture).
- ▶ Customer consultation desk (Nippon Paper Crecia)
 - Offering a system whereby the opinions and questions of customers can be utilized for the further development and improvement of products.



*1 Activities whereby an enterprise attempts to fulfill its social responsibilities when procuring raw materials across its entire supply chain by demanding that suppliers engage in environmental and social initiatives.

*2 Restrictions on factory tours in some areas to prevent the spread of COVID-19.

System for Advancing New-product Development

- The Group has established its New Product Development Committee to accelerate business structure transformation.
- The committee discusses themes related to the development of new products and new businesses (such as the development of products derived from wood resources in line with growing environmental awareness), and (1) selects a person responsible for the development, (2) allocates resources, and (3) determines whether to continue/discontinue the themes properly.
- New Product Development Team under the committee searches for themes related to new products and new businesses, and manages the progress of development themes.



Products that Contribute to the Building of a Sustainable Society

As a comprehensive biomass company shaping the future with trees, the Group develops various businesses that maximize the use of renewable woody resources using diverse technologies and expertise, and the products and services it provides have a high affinity with building a sustainable society and SDGs (Sustainable Development Goals)*. The Group is developing various products using woody resources procured from forests with sustainable management. Furthermore, the Company utilizes the characteristics of woody resources and provides environmentally friendly products which reduce usage of fossil-based raw materials and improve recyclability and transportation efficiency etc.

* As a comprehensive biomass company shaping the future with trees, the business development of the Nippon Paper Group will contribute to the achievement of the SDGs.