Quality Assurance Guidelines

Furukawa Electric Co., Ltd.

November 20, 2024

Introduction

Purpose

These quality assurance guidelines have been established for the purpose of understanding the stance of Furukawa Electric Co., Ltd. and its group companies (hereinafter referred to as “the Company”) on quality management and cooperation in supplying products and services that fulfill the Company’s quality requirements from suppliers and contractors undertaking transactions with the Company (hereinafter referred to as “partners”).

They envision the construction, implementation and improvement of the quality management system in accordance with ISO 9001: 2015 in the value chain consisting of the Company, its partners and secondary and subordinate partners to ensure constant improvement in customer satisfaction. The Company therefore requests thorough understanding of and compliance with these Guidelines.

[Scope of Application]

Those partners who deal with raw materials, the production of components, software production and embedding, assembly, outsourcing of work (including production, inspection and construction/installation work) and other processes regarding products and services (hereinafter referred to as “Products”) that the Company delivers to its customers shall be subject to these Guidelines. These Guidelines shall apply to quality management operations in all phases of preparation for production, mass production prototyping, and mass production.

[Position and Treatment of the Guidelines]

When individual contracts such as purchase specifications and guidelines on quality management specific to business domains such as automotive products (hereinafter referred to as “individual contracts concerned”) are issued and any provision therein conflict with these Guidelines, the provisions of such individual contracts shall prevail.

The individual contracts concerned shall, in principle, provide for tougher management standards than these Guidelines.

For instance, individual contracts concerned shall have more detailed provisions, such as “something shall be stored for ten years,” while these Guidelines simply provide that something shall be stored.

[Inquiry Contact]

The quality assurance representative shall manage the latest version of the Guidelines. Inquiries regarding any unclear points in these Guidelines shall be addressed to the Quality Promotion Department, Monozukuri Innovation Division, Furukawa Electric Co., Ltd.

(fec.hinshitsu-madoguchi@furukawaelectric.com).

If there are any questions regarding individual aspects of operation, partners shall contact the Quality Assurance Section contact desk for the product in question.

When partners have transactions with multiple business divisions, partners shall contact the Quality Assurance Section contact desk for each business division.

[Non-Disclosure]

The Company and partners shall not disclose any confidential information about each other. They shall treat any information obtained through day-to-day operations as confidential information. Partners shall have a responsibility to properly manage drawings, data, standards, customer information and other information supplied by the Company. Should any confidential information be leaked to outsiders, they shall contact the Company immediately.

[Product Liability]

If a company causes any product liability (PL) issues, it may instantly lose social trust. No product liability issues should be allowed to occur, and it is necessary to establish a system that checks any possible risk in all parts and at all levels of production activities, and to prevent issues. Partners shall determine check items from the perspective of product liability and take measures that eliminate risks.

- If partners are under any obligation stipulated by any law or ordinance relating to product liability, they shall observe it.
- If any obligation is specified in the Company's purchase specifications and other specific contracts (contracts concerned), it shall be fulfilled.
- Even in the case of outsourcing product design, partners shall unfailingly implement product liability assessments, not only in product liability design but also in goods assessment and design review.
- Both in the case where the Company provides drawings, specifications and the equivalent and in the case where partners perform works and inspections in accordance with their own drawings, specifications and the equivalent, they shall carry out the works and inspections in accordance with the procedures and in a standardized manner without fail.
- In the event of a change in any material or operational procedure, partners shall study its impact on product liability and implement a product liability assessment if appropriate.
- Partners shall simplify their records on product liability and store them for a stipulated period. Where necessary, the storage period shall be determined by discussion with relevant division.
- If any product liability risk is discovered in a product inspection or examination, partners shall report it to the Company.

- Judgements regarding product liability insurance coverage shall be made by the Company as necessary.

Should any issue occur, partners shall give top priority to cooperation for resolving it and rapidly bringing its impact to an end.

[CSR Procurement]

For the requirements concerning CSR procurement, refer to the separately provided Furukawa Electric Group CSR Promotion Guidelines.

[Force Majeure]

Neither of the parties shall assume liability for non-fulfillment or any delay in the fulfillment of their obligations under these Guidelines attributable to a riot, civil war, warfare, international hostile action, government legislation, order or regulation, prohibition on trading, mandatory treatment by a government or any of its organizations, natural disaster, storm, labor strike action, sabotage, or any other similar event beyond their reasonable control for the period of such force majeure; provided, however, that they shall not evade their monetary liability.

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1 Requirements with Respect to Quality Assurance

Businesses would not be able to survive without social recognition of their value. Collaborative activities between partners and the Company based on high ideals and philosophy are essential for the Company's continuous growth as a business whose continuity is accepted.

A guarantee of the quality of every single product delivered to customers is the foundation of quality assurance. This cannot be achieved with efforts made by the Company alone. It is necessary to ask partners supplying products and raw materials, and those commissioned by the Company as outsourcing partners, to guarantee the quality of items supplied and services provided. The following prescribes the Company's requirements for quality assurance in collaboration between partners and the Company.

1.1 General Requirements

Partners shall construct, document, maintain and effectively operate their respective quality management systems in accordance with these Quality Assurance Guidelines. They need to continuously improve the effectiveness of their quality management systems.

In the event of outsourcing part of their operations and the management thereof, partners shall ensure that the outsourced operations are under proper control.

The Company does not require partners to obtain ISO 9001:2015 certification but to construct a system in accordance with the ISO 9001 standard to carry out activities to achieve the quality expected by customers. For this reason, the Company may audit any partner's quality management system in accordance with the ISO 9001 standard.

1.2 Requirements from Quality Management Systems

a) Partners shall establish, maintain and effectively operate quality management systems for all processes for the appropriate provision of products and services in accordance with the Company's purchase orders, including design, purchases, manufacturing, inspections, construction, maintenance, and software design, production, testing and maintenance, etc.

b) Partners shall ensure that their quality management systems include measures to prevent and rapidly discover any product to be delivered that is nonconforming in terms of quality, and to respond rapidly and take corrective action. The responsibility for the quality management of all processes shall be clearly specified in the partners' internal organizations.

c) Partners shall, immediately upon request from the Company, submit quality assurance system charts, procedural manuals for response and corrective action to nonconforming products, procedural manuals for design and development work (design planning, design review, product design, process design, and alterations to product and process design), organization charts and QC process charts of those suppliers that are specified in the list of partners and value chains.

d) The Company shall carry out an audit, if necessary, on the basis of the quality assurance system charts, procedural manuals for response and corrective action to nonconforming products, procedural manuals for design and development work, organization charts and QC process charts. Where any nonconformity is found during the audit, the Company shall take corrective action.

e) Partners shall store and manage the records specified below to maintain the quality management system mentioned above. The Company may request that partners submit any of the records specified below and it may examine the information in the records.

① Records of product inspections (including final and interim inspections)
② Records of lot numbers, serial numbers and others to which any design change applies
③ Records of lot numbers, serial numbers and others to which any process change applies
④ Records of design reviews, etc.
⑤ Records of nonconforming products (including details of nonconformities, extent of impact, action taken with regard to nonconforming products including other products affected, tentative measures, causes and corrective action, prevention measures, and lot and serial numbers to which they are applied)
⑥ Records of changes to drawings, specifications and software programs, etc.
⑦ Recording of certification of workers and the certification renewal.
⑧ Documented information for management review
⑨ A duplicate copy of the ISO 9001:2015 certificate

1.3 Management responsibility

The management of partners shall accept full responsibility for the quality of the products that they deliver and shall continually assess and improve the performance and effectiveness of their quality management systems and operate them effectively.

The management of partners (or people to whom management has delegated its authority) shall perform a management review at least once every fiscal year at predetermined intervals and keep records of its results to ensure that their quality management systems are continuously and properly implemented and remain appropriate and effective.

1.4 Respect for Requirements

Partners must construct and operate mechanisms for checking the Company’s requirements concerning products and the requirements of laws and regulations to unfailingly deliver and manage the products requested by the Company.

2 Securing Resources

Partners shall secure the necessary resources such as personnel, goods, facilities and environment in accordance with the Company's requests such that the quality of the products meets the Company's requirements.

Partners shall make sure that personnel with necessary skills are assigned to related activities and that they are aware of the impact that their activities have on quality.

3 Ordering Process3.1 Checking of Purchase Orders and Specifications (Details, Quantity, Delivery Due Date and Others in Purchase Specifications and Others)

a) Upon the receipt of a purchase order and specifications from the Company, partners shall study their details and contact the Company before production if they have any uncertainties and questions.

If any partner's facility, manufacturing capabilities or other conditions may fail to meet the purchase order and specifications from the Company, it shall contact the Company promptly for consultation.

b) For any product to be delivered to the Company whose purpose of use or common method of use is self-explanatory, although it is not necessarily specified in the purchase order or specifications, the requirements for them shall be incorporated in design, manufacturing, construction or other conditions. Where necessary, partners shall inquire with the Company.

3.2 Check of Specifications and Equivalent Materials

a) As soon as they receive purchase specifications, partners shall promptly submit to the Company the receipt of purchase specifications and, when necessary, production drawings for seeking approval.

Upon a request from the Company, partners shall submit delivery specifications.

b) When requested to do so by the Company, partners shall submit inspection procedures to the Company prior to the start of the inspection.

c) In the event of doubts regarding information in the purchase specifications, production drawings for seeking approval, delivery specifications, inspection procedures or any other drawings, any partner or the Company shall notify the other party to address them in accordance with the written instructions.

3.3 Management of Partners' Drawings, Specifications and Other Materials

a) Partners shall create a system for effective document management, maintain drawings, specifications and other materials in such a way as to enable them to be managed in their most up to date version, and ensure that up to date versions can be shared at any time with internal

personnel who need them.

b) In the event of any change in drawings, specifications and other materials, partners shall manage them properly to prevent any expired drawings, specifications and other materials from being used.

c) Partners shall make the details of any changes in drawings, specifications and other materials exchanged with the Company clear, and obtain approval from the Company for making such changes.

3.4 Management of Drawings, Specifications and Other Materials Supplied by the Company

a) Partners shall neither use any of the drawings, specifications and other materials for any purpose other than their intended purposes nor duplicate them for any such purpose without the permission of the Company.

b) After the Company changes any of the drawings, specifications and other materials it has supplied, partners shall use its latest version.
If the above change requires the partner to change any of their drawings, specifications or the like, they shall change them in a timely and swift manner and use the latest version of these drawings.

c) After the completion of delivery to the Company, partners shall, in principle, return all the supplied drawings to the Company, and delete electronic drawings.
However, in cases where the Company is expected to continuously place orders, and where the Company approves such outsourcing, the Company may outsource management, including the storage of supplied drawings and replacement with revised versions, to partners. In this event, partners shall not be under any obligation to return the supplied drawings at the time of delivery.
When engaging in any other management, partners shall hold prior discussions with the Company.

3.5 Treatment of Maintenance Parts after Delivery of Devices

Partners shall implement quality management of maintenance parts for which they resume production in response to a request from the Company after the discontinuation of production following the delivery of devices and other products. The quality management shall be equivalent to that for the products.

4 Design, Development and Change Processes

4.1 Design Review

a) Partners shall create a design after fully understanding the Company’s requirements and those

under laws, ordinances and regulations and perform a design review as required separately in the processes of design, manufacturing and evaluation testing.

b) It is desirable that the design review be carried out together with the Company's technology personnel.

c) Partners shall create and keep records of design reviews or design assessment to ensure that the state of actions for addressing remarks may be checked. The Company may request that these records be submitted to it as needed. (The tables of differences, tables of alterations, tables of changes and DRBXX should be used to identify and respond to risks). Reference 1-4

d) Partners shall submit assessment test results requested by the Company in relation to assessment tests of prototypes and other items to the Company. Where necessary, partners shall discuss the content of assessment tests with the Company.

4.2 Maintenance of Reliability

a) Partners shall carry out necessary reliability tests based on a thorough understanding of the Company's requirements, or take similar actions to ensure the reliability of the products delivered. It is desirable for partners to discuss the content and methods used in reliability tests with the Company. Upon a request from the Company, partners shall promptly submit test reports including standard criteria judged by the partner, and the basis for those criteria.

b) Partners shall carry out a reliability test of products delivered on a regular basis if it is requested by the Company. In the event of any abnormality, they shall immediately submit a written report to the Company.

c) Partners shall, as required, consider carrying out the reliability test mentioned above concerning a single component or several components incorporated into any product delivered.

d) In the case of the nonconformity of any of the components or materials which the Company specified should be used, partners shall work to settle the issue jointly with the Company.

4.3 Design Change Management

It is necessary to be aware that design changes may arise in various situations. Such situations may include responses to quality nonconformity of products, etc. cost reductions, functional improvements, change of partners, responses to changes in laws and regulations concerning dangerous substances or other substances contained in products, responses to improvement proposals from the production workplace, and responses to requests from customers. Personnel must not make intuitive judgements as to whether changes are major/significant or insignificant. It is necessary to have a process for detailed consideration of issues such as ensuring quality required by customers, conformity with initial design quality, and details of trade-offs due to changes.

Partners must determine idea formation, design, review and approval procedures in advance, and

establish, maintain and manage specific operating procedures to ensure that changes are not made at the discretion of the person in charge of the procedure, and that they are carefully managed by the organization. They shall also work every day to build relationships of trust and ensure that information is shared to prevent unforeseen damage as a result of silent changes.

a) Examples of design changes that require management are provided below.
   ① Materials and components (including composition, physical properties, compatibility, suppliers and catalog items)
   ② Structure, shapes and dimensions (including surface treatment specifications, compatibility, connection and fitting characteristics)
   ③ Characteristics (standards, judgment criteria, measuring methods and reliability) and functions
   ④ Operating environment (place of use, temperature, humidity and other conditions)
   ⑤ Purposes and methods of use (including manufacturing methods including chemical reactions and software for operating manufacturing systems)
   ⑥ Forms of packing and secondary materials
   ⑦ Software (including interface specifications), software operation environment (operating systems and firmware), and development environment (compilers, test tools and their versions)

b) When proposing any design change, partners shall submit a design change application (*1 and *2) in writing to the Company.

   The design change application shall include the reasons for the change and the results of conducting the actions specified in paragraph c) below. The Company shall review the content of the design change application. The Company may also request product samples for validation purposes, and display additional requirements for assessments at the partner. After the Company grants approval, partners shall commence a design change for the products delivered.

   *1 In the case of products that require long-term assessments, the time taken for the change may be six months or longer. Individual discussion is therefore required at the planning stage.

   *2 A response shall be provided in the designated form if it is designated in a contract with the Company.

c) Partners shall implement the actions specified below at the time of a design change.
   ① Check of appropriateness and examination of risks involved in design change and actions for addressing them

   (The tables of differences, tables of alterations, tables of changes and DRBXX Reference 1-4 and past problems should be used to identify and respond to risks).

② Implementation of necessary assessment tests (including the reliability test)

③ Changes in the QC process chart, inspection standards, manufacturing standards and other documents

④ Records of lot numbers, serial numbers and others to which any design change applies

⑤ Determination of methods for handling older design items (preventing contamination by mixing of new and old designs)

⑥ Notifying relevant parties of the timing of changes

d) Partners shall be responsible for ensuring that secondary and tertiary suppliers and contractors and suppliers and contractor further down the value chain manage design changes to prevent silent changes. Design change applications shall be submitted prior to changes being made. When any secondary, tertiary or other supplier submits an application for a design change, partners shall manage the matter in a way that is equivalent to their management of their own design changes. If the design change may possibly impact the quality of the Company's products, they shall report it to the Company.

5 Purchase Process

5.1 Actions by Partners

Partners shall conduct appropriate management of purchased items to ensure the quality of products delivered.

a) Partners shall clearly document and convey the required specifications, including those for manufacturing and other processes, to suppliers, contractors and other partners from whom they purchase and manage them.

b) Partners shall conduct audits to assess the technical capabilities, supply capacity, quality management systems and other capabilities of suppliers, contractors and other partners they purchase from. Audit methods shall be in accordance with partners' own criteria. Partners shall appropriately assess suppliers, and take appropriate action in the event of the discovery of any problems. Partners shall manage the capabilities of suppliers, contractors and other partners using a value chain list, and conduct regular audits.

c) To ensure that the materials purchased or products manufactured upon contract satisfy requirements, partners shall, as necessary, request written inspection results concerning these materials or products from their suppliers, contractors and other parties. They shall check whether or not they satisfy the quality requirements by performing inspections and equivalent actions, keep records of their results and take other actions to make sure their requirements are fulfilled.

5.2 Order Conditions

In connection with purchases and outsourcing, partners shall make the matters specified below

clear and implement them without fail.

a) Specifications for orders shall be communicated clearly in writing, and agreed to in writing.

b) Order conditions, quantities and delivery dates shall be agreed to.
Where necessary, order conditions shall include manufacturing processes, manufacturing facilities, limitation of workers (and their competences) and seconded inspections of first-time products.

5.3 Submission of Value Chain List

Partners shall prepare and maintain a value chain list to keep track of their overall value chain. When requested to do so, partners shall submit their value chain list to the Company.

a) In cases where, based on materials displayed by the Company, there are purchases items or instances of outsourcing of manufacturing or construction / installation work that affect quality, partners shall submit their value chain list to the company. The value chain list shall specify the partner and business operated by its supplier or contractor on a product-by-product basis or at the time of construction. It shall also contain parties to whom manufacturing and works involving processing or construction are outsourced as well as parties from whom catalog items and materials are purchased.

b) Prior to changing the value chain, partners shall submit a written change application to the Company.
When wishing to change details listed in the value chain list, partners shall obtain the consent of the Company. (See 6.8 Process Change) In addition, partners shall, prior to the commencement of production, expressly disclose to the Company their judgment criteria as to whether the supplier or contractor is appropriate, similarly to the occasion of selecting contractors.

c) Partners shall endeavor to maintain and improve quality by responsibly providing guidance to suppliers and contractors, and auditing them when necessary.

d) Where partners perform an audit, the Company may check the status of partners' implementation of the audit of suppliers or contractors.

e) Partners shall not avoid their responsibility to ensure the quality of products and other items or for construction, even if the Company approves the outsourcing of all or part of the products and other items or construction to third parties.

5.4 Check by Audit

a) The Company may audit factories or construction sites of partners or their suppliers or contractors as required for the purpose of checking and assessing whether partners are carrying out appropriate quality management, and partners shall cooperate with this. Audits shall be

performed under mutual agreement when partners are newly certified, when any new product is launched, when a process change is made, when nonconformities occur frequently, when any significant nonconformity occurs, when periodic checks of the state of quality management are conducted, and at other such times.

b) Partners shall take immediate corrective actions to address remarks made at the time of conducting an audit and submit a correction report.

6. Manufacturing Process

6.1 Maintenance of Manufacturing Capabilities

Partners shall secure sufficient manufacturing capabilities (appropriate manufacturing sites, equipment and environments and competent personnel) to produce products that will be delivered to the Company.

6.2 Working Environments

a) Partners shall ensure the five S practices, namely Seiri, Seiton, Seiso, Seiketsu and Shitsuke (Sort, Set in order, Shine, Standardize and Sustain) in working environments.

b) Partners shall develop working environments that enable workers to perform their duties in health, safety and comfort and concentrate on their work, including aspects such as temperature, humidity, illuminance, noise, vibration and wideness of space.

6.3 Quality Management before Mass Production

a) In the design assessment and the design review process, partners shall work from requirements to create basic and detailed designs, sufficiently validate them through prototyping and assessment, and ensure that the required quality is achieved. In process design, partners shall clarify items for management and inspection for each process paying consideration for mass productivity, and ensure that products can be manufactured repetitively and consistently.

6.4 Initial Flow Management

a) When commencing mass production, partners shall determine quality management targets (using the process capacity index or equivalent) to implement initial flow management for a certain initial period, and seek to prevent the occurrence of major quality issues and outflow of nonconforming products. (DRBTR and DRBDP are recommended (see References 1 to 4.) Partners shall estimate the risks from data on inspections and changes in products before and after the start of mass production to address issues.)

b) Partners shall fully analyze nonconformities (changes that could possibly lead to nonconformity in the market even when within the range of control values) that occur during the initial flow period to prevent the occurrence and outflow of nonconforming products. Where necessary,

partners shall redesign and conduct further design reviews.

6.5 Day-to-Day Management

In day-today management, partners shall maintain and manage production processes in accordance with standards (including production orders, work procedure manuals and inspection standards), take corrective action upon discovery of nonconforming products, and carry out day-to-day quality maintenance and improvement activities in an effort to enhance quality. This shall include monitoring the day-to-day state of attributes that require management, checking for changes in trends that differ from the norm and deviations from preset standard management values, and making necessary responses.

6.6 Special Processes and Qualifications

a) The term “special processes” shall refer to welding, heat treatment, quenching, chemical treatment, brazing, soldering, excavation work and other processes concerning which it is impossible to verify the status or quality of the output by monitoring or measurement thereafter.

b) Partners shall define special processes and formulate and maintain appropriate management standards. They shall keep photographs and other evidence of work results if necessary (for example, in the case of excavation works). They shall also give consideration to checking the appropriateness of these processes through regular damage inspections.

① Partners shall manage their list of special processes, including special process types, facilities and equipment used, lists of certified workers, and evidence of certification (such as standards and certificates).

② In the event of a change in the information on the list mentioned in ①, partners shall manage the list reflecting the change and its change history.

c) With respect to workers performing special processes, partners shall observe the provisions specified in the items below.

① Partners shall provide education and training to such workers to maintain their skills, and reconfirm the appropriateness of this education and training on a regular basis.

② Partners shall register certified workers and manage records.

③ Partners shall assign certified workers to special process works after confirming that they have the relevant certification.

6.7 Inspection Processes and Qualifications

a) For inspection processes, partners shall formulate inspection standards in full consideration of the Company’s quality and characteristics requirements, and build a management system that ensures appropriate judgements regarding conformity with the mandatory use of calibrated

measuring devices.
From the perspective of preventing fraud, it is recommended for partners to build systems without human intervention in measurement, judgement and record-keeping processes.

b) Partners shall provide education and training for workers who are involved in inspection processes to maintain their skills, and reconfirm the appropriateness of this education and training on a regular basis.
① Education content shall include quality compliance.
② Partners shall register certified workers and manage records.
③ Partners shall assign certified workers to special process works after confirming that they have the relevant certification.

6.8 Process Change

a) Partners must determine idea formation, design, review and approval procedures in advance, establish, maintain and manage specific operating procedures, because it is necessary to ensure that nothing is overlooked in process change management. Examples of process changes that require management are provided below.
① Change in production location
② Changes to production facilities and inspection / measuring equipment (modifications, dies, jigs and other equipment, etc.)
③ Changes to suppliers and outsourcing partners
④ Changes to production methods
⑤ Changes in manufacturing conditions (such as temperature, pressure, tension, electric current, and velocity)
⑥ Changes in supplementary and secondary materials that affect product quality
⑦ Changes in inspection methods (changes in inspection instruments, inspection methods, boundary samples and sampling methods)
⑧ Changes in software in manufacturing, inspection or other facilities

b) When proposing any process change, partners shall submit a process change application (*1 and *2) in writing to the Company. The process change application shall include the reasons for the change and the results of conducting the actions specified in paragraph c) below. The Company shall review the content of the process change application. The Company may also request product samples for validation purposes, and display additional requirements for assessments at the partner. After the Company grants approval, partners shall commence a process change for the products delivered.
*1 In the case of products that require long-term assessments, the time taken for the change

may be six months or longer. Individual discussion is therefore required at the planning stage.

*2 A response shall be provided in the designated form if it is designated in a contract with the Company.

c) Partners shall implement the actions specified below at the time of a process change.

① Check of appropriateness and examination of risks involved in design change and actions for addressing them
(The tables of differences, tables of alterations, tables of changes and DRBXX Reference 1-4 and past problems should be used to identify and respond to risks).

② Implementation of necessary assessment tests (including the reliability test)

③ Changes in the QC process chart, inspection standards, manufacturing procedure manuals and other documents

④ Records of lot numbers, serial numbers and others to which any design change applies

⑤ Determination of methods for handling older items (preventing contamination by mixing of new and old items)

⑥ Notifying relevant parties of the timing of changes

d) Partners shall be responsible for ensuring that secondary and tertiary suppliers and contractors and suppliers and contractor further down the value chain manage design changes to prevent silent changes. Where necessary, partners shall notify the Company of the changes at their own judgement.

6.9 Changes to Organizations and Managers

a) In the event of a change in the organization or manager handling products delivered to the Company, partners may be requested to report it to the Company.

b) Partners shall submit a prior report and obtain approval from the Company for change to workers which may impact competencies or qualifications requested by the Company.

6.10 The Company's Incoming Inspection (Including Visiting Inspection and Completion Inspection)

a) Products delivered must pass the Company's incoming inspection (including the visiting inspection and the completion inspection).

b) Visiting Inspection
Based on prior discussions, the Company may send and second its employees to partners to perform delivery inspections. Partners shall cooperate with the Company's visiting inspection. In the event of a visiting inspection, partners shall issue a visiting inspection record (including

meeting minutes) to seek approval from the Company.

c) Completion Inspection

In the case of construction work, cable laying, installation and other such work, a completion inspection may be performed by the relevant partner and the Company, or by the partner, the Company and its customer(s). Partners shall cooperate with this completion inspection. Details of the inspection shall be decided by discussion on a case-by-case basis.

6.11 Dispatch of Engineers

In the event of quality issues arising in delivered products, partners may order the dispatch of their specialist engineers in order to verify the facts, take temporary emergency measures, and identify products that may be affected, in order to quickly resolve the issue.

6.12 Guarantee for Delivered Goods

Partners shall manufacture, construct/install and inspect products in accordance with their own manufacturing, construction/installation and inspection standards, and deliver products that conform to those standards.

If any nonconforming products are confirmed as being attributable to a deficiency on the part of the partner after the Company’s incoming inspection, partners shall swiftly produce new products or modify the products free of charge in accordance with the Company’s instructions. Where there is any quality issue and where it is deemed necessary to make a judgment on the shipment as a result of consultation with the Company, partners shall submit a concession application and ship products after obtaining approval from the Company.

After commencing delivery of products, partners shall bear the responsibility to supply them until the Company ends sales of those products. The same shall apply to the supply of maintenance supplies for the Company's products. When there is difficulty in providing this response, partners shall contact the company in writing in advance, and discussions shall be held.

6.13 Quality Management Records (Manufacturing History and Traceability)

a) Manufacturing History Management

Partners shall assign lot numbers, serial numbers or the equivalent to products delivered to the Company and manage them to ensure that the manufacturing history of individual products is traceable. However, if the said assignment is impossible due to the nature of the products, partners shall enter into consultation with the Company regarding management methods.

*1 Quality records shall be kept for eleven years, unless otherwise separately arranged.

*2 Examples of information in the manufacturing history (including that of partners’ contractors): Place of manufacture, date and time of manufacture, manufacturing facilities,

inspection equipment, workers, inspectors, manufacturing conditions, quality records, quality records of materials and components used in products, and equipment, etc.

Partners shall manage the manufacturing history of goods to be delivered and ensure that they are prepared for submission at the request of the Company.

*3 For instance, if nonconformity occurs, the Company may request the submission of the manufacturing history within the scope concerned.

b) Presentation of Quality Status

Partners shall constantly monitor the state of product quality (such as the state of incoming inspections, in-process inspections, and inspections of completed articles) and report it at the request of the Company. As a basic rule, reports shall be requested every six months, although this may be changed by consultation.

6.14 Management of Articles Supplied and Loaned by the Company

a) The Company may supply or loan materials, components, intermediate products, software and other articles to partners.

b) When articles are supplied or loaned by the Company, Partners shall submit to the Company a receipt, or temporary receipt as requested by the Company, and check their models and quantities as well as whether or not they have any deficiency in terms of appearance. If any nonconformity or other issue is discovered, partners shall immediately notify the Company to seek instructions.

c) Partners shall properly identify and store articles supplied or loaned by the Company and implement prevention action against damage and deterioration. They shall not use materials and components supplied by the Company for any product other than those delivered to the Company.

d) Partners shall maintain the confidentiality of intellectual properties concerning articles supplied or loaned by the Company, including software, and shall not leak them to any third party.

6.15 Management of Goods in Stock

a) Partners shall perform appropriate identification (using item names, models, lot numbers and serial numbers, etc.) and appropriate management of goods in stock, including materials, components and products, with consideration for the effects on products. It is recommended for partners to clarify storage locations, quantities, and make use of computer systems, etc. For goods in stock for which there is a set storage period and storage conditions, partners shall clearly specify management methods and make them known to personnel. Goods in stock and inventory management shall be performed on a first in, first out basis.

b) Partners shall ensure that goods in stock to be delivered have no quality abnormality or deterioration in terms of progress by means of re-inspection or others prior to delivery to the

Company.

6.16 Packaging, Packing and Handling During Transportation, etc.

a) Partners shall use appropriate packaging and packing on products for delivery, with consideration for product characteristics, transportation methods, conveyance devices and other aspects of the transportation conditions. They shall also label external packaging with cautionary notices regarding handling, as necessary to prevent damage by cargo handlers.

b) When the Company does not specify and specific regulations with regard to packing, etc., partners shall establish and operate standards that enable products to be maintained and delivered in good condition.

6.17 Measuring Instruments and Test Devices for Inspection

a) Partners shall maintain measuring instruments and test devices used in inspection processes in such a state as to enable appropriate inspections, by performing regular calibration and inspections before use.

b) Partners shall document and maintain calibration and inspection procedures and keep calibration and inspection records.

c) Where nonconformity is found by calibration or the daily, start of work or periodic inspection of any measuring instrument, test device, equipment or software for inspection, partners shall study the impact on goods (targeting those inspected with measuring instrument, etc. with nonconformity) delivered since the previous calibration or inspection and report the findings to seek the Company’s instructions.

* Partners shall manage the version of software for inspection, check it against the products and ensure its traceability.

d) In the event of replacing any measuring instrument, test devices, equipment or modifying software for inspection, partners shall do so in accordance with the process change procedures.

7 Audits and Management of Nonconforming Products by Partners

7.1 Internal Audits and Audits of Suppliers and Contractors by Partners

a) Partners shall conduct internal audits to check the effectiveness of their own quality management systems.

b) If a correction is required as a result of an audit, partners shall take corrective action without fail.

c) Partners shall conduct an audit when adopting a new supplier or contractor, etc., and continue to conduct audits thereafter. Audit methods shall in accordance with partners' own standards, but must appropriately assess the supplier. If any issue is discovered, partners must take appropriate

measures. Depending on the state of quality at the supplier or contractor, continuous audits may be performed as document-based audits.

7.2 Management of Nonconforming Products

a) Partners shall identify nonconforming products and prevent them from mixing with conforming ones. Partners shall, for example, apply labels to products identifying them as nonconforming and relocate the nonconforming products to a separate storage location.

b) Partners shall formulate procedures for modifying and repairing nonconforming products or construction, shall carry our proper treatment, and conduct a re-inspection to check that the products conform to quality standards.

c) In the event of modifying any nonconforming product, partners shall keep records of the modification and properly manage the modified product.

7.3 Corrective Action and Recurrence Prevention

a) Nonconformity in Partner's Processes

When a nonconformity is identified for any semi-finished product in process, finished product, component, purchased item or construction, partners shall quickly check whether or not any item that is nonconforming in that way has been delivered to the Company. If any such product has been delivered, partners shall immediately notify the Company and make arrangements for replacement and the like. They shall also promptly take emergency measures (specifically, the elimination of the nonconformity, temporary measures and responses to the consequences of the nonconformity), investigate the causes of the nonconformity and implement corrective actions with the goal of eliminating the causes of the nonconformity and preventing its recurrence. They shall review the effect of all of the corrective actions taken and carry out design changes and process changes in accordance with the predetermined procedures if they are necessary as a result of the corrective actions. They shall keep records of all of these activities and the results of the corrective actions.

b) Nonconformity after Delivery to the Company

If nonconformity is discovered in products derived from articles delivered by partners is discovered, by either the Company or its customers, partners shall act in accordance with the Company's instructions to deliver replacements, etc. They must also promptly conduct an investigation of the causes, implement corrective measures, and take steps to prevent recurrences. Causes and corrective measures shall be included in a report to be submitted in accordance with the requests of the Company. Reports concerning nonconformities shall include the team addressing the nonconformity, the personnel in charge, the division of duties in the team, descriptions of nonconformities, the scope of the negative impact, actions for dealing

with the current state including the negative impact, provisional action (*), causes of occurrence and undesirable delivery, corrective action, the effect of these actions and recurrence prevention measures. Reports shall be submitted in stages, in accordance with the progress of investigations and measures.

c） When investigating the causes of the nonconformity, partners shall identify the true causes of the nonconformity and implement countermeasures. They must identify not only the causes of the events that occurred but also the root causes (associated with propriety technologies and management techniques) and implement recurrence prevention measures.

7.4 Reporting of Nonconformities in the Company's Products and Similar Products

In the event of the occurrence of nonconformity in products similar to any products to be delivered to the Company, partners shall study the possibility of the occurrence of similar nonconformity in products for the Company. Should it be found that there is a risk of occurrence, partners shall report it promptly to the Company and implement control measures.

References

1. Tatsuhiko Yoshimura, *Toyota-style Preventive Methods & GD*^{3} (JUSE Press, Ltd., 2002)
2. Tatsuhiko Yoshimura, *Preventive Methods GD*^{3} *for Anticipating the Unanticipated* (JUSE Press, Ltd., 2011)
3. Tatsuhiko Yoshimura, *Full Participation Management APAT* (JUSE Press, Ltd., 2012)
4. Tatsuhiko Yoshimura, *Discovery Power* (JUSE Press, Ltd., 2016)

Value chain format (example)