

April 25, 2019

Fujikura Ltd.

## Report on the Results of Investigations regarding Cases of Impropriety Related to the Quality Control of a Portion of Our Products

We would like to express our sincere apologies again for the significant inconvenience and concern caused to our customers and other stakeholders regarding the cases of impropriety related to the quality control of a portion of the our products announced on August 31, 2018 (the “Cases”).

We retained an external law firm to confirm the facts and investigate the causes of the Cases (the “Investigation”). The Investigation completed on April 19 2019, and, we received a report on the results of the Investigation from the relevant law firm. Based on the results, we would like to present the historical background up to this point, an outline of the facts in respect of the Cases that we became aware of, the causes, and the measures to prevent recurrence as set forth below. Also, we would like to announce, that, as set forth below, in order to demonstrate that our directors are taking the Cases seriously and clarify the management responsibilities related to the Cases, we have decided that directors will relinquish a portion of their compensation.

We confirm that improper acts have ceased to continue in all the Cases at this time. We have completed factual notices to the relevant customers, and some customers are in the process of confirming the performance, soundness, and safety in respect of the products. In this regard, we would like to express our apologies again. We will continue to report on the progress of the corrective measures, including our provision of explanations to the customers related to the Cases and the measures to prevent recurrence.

### **Description**

#### 1. Background

In order to confirm the quality control system across Fujikura Ltd. and its group companies (collectively, the “Group”), we began internal inspections and checks on the overall quality control of all products in October 2017 (the “Quality Self-Inspection in October 2017”). The results were reported in December 2017 and we recognized the possibility that there were 10 cases of impropriety in the Power & Telecommunication Systems Company and other divisions. Since all of these cases were related to individual agreements with particular customers, we contacted the relevant customers and consulted with them on measures to be taken for the time being and corrective measures.

Subsequently, in 2018, three (3) new cases of impropriety, which related to individual agreements with particular customers, were reported. Accordingly, we again conducted inspections and checks

across the Group in June 2018 with respect to whether there were any other similar cases (the “Quality Self-Inspection in June 2018 ”), and, as a result of such inspection, 57 cases (excluding the above three (3) cases) were reported in July 2018. (A total of 70 cases, including 10 cases reported as a result of the Quality Self-Inspection in October 2017, three (3) cases reported in 2018, and 57 cases reported as a result of the Quality Self-Inspection in June 2018, shall be hereinafter collectively referred to as the “Existing Cases”).

Based on these results, in August 2018, we retained the external law firm in order to conduct a thorough investigation from the view point of objectivity and fairness and asked them to conduct the Investigation. In the course of the Investigation, among the Existing Cases, cases of procedural inadequacies related to JIS-marked products with respect to changing the quality control system in the JIS certification maintenance audit and cases of impropriety related to the products for use in general were found. As a result, on August 31, 2018, we released a press release and held a press conference to the effect that the Cases were found to exist in the Group (the “Announcement on August 31, 2018”).

The main content of the Investigation conducted after the Announcement on August 31, 2018, is as follows:

(1) Quality Self-Inspection (the “Third Quality Self-Inspection”)

Two (2) quality self-inspections (the Quality Self-Inspection in October 2017 and the Quality Self-Inspection in June 2018) conducted by the Group were based on the self-reporting of the officers and employees of the Group (the “Officers and Employees”). In the third Quality Self-Inspection, we requested the external law firm to formulate guidelines for inspections and checks in order to conduct exhaustive inspections and checks, and conducted the following inspections on products manufactured and services, including inspections, conducted by the Group during the one-year period from September 2017 to August 2018, at our factories and offices in and outside Japan where the products of the Group are manufactured or services, including inspections, are conducted (84 locations in total) (the “Inspected Locations”).

- (i) Check as to whether manufacturing methods, inspection details, inspection items, and other requirements are consistent with product specifications based on laws and regulations, official standards, and agreements with customers
- (ii) Check as to whether the results of the actual inspections and the results of the tests are consistent with the statements of the inspection reports submitted to the customers, etc.

The content and results of the actual inspections and checks were compiled into the prescribed reports and submitted directly from the Inspected Locations to the external law firm.

(2) Questionnaire

From October 1, to 19, 2018, the external law firm conducted a questionnaire seeking for a response to the external law firm regarding the following questions: (i) whether or not conducted improper acts related to quality or any awareness thereof, (ii) if conducted, or was aware of, the improper act related to quality, the content of such improper act, and (iii) causes of the improper act related to quality. The subjects of the questionnaire were, those who belong to manufacturing departments, quality assurance departments, engineering departments, R&D departments, manufacturing administrative departments, and sales departments, and those who belong to indirect departments and are engaged in the work related to the Third Quality Self-Inspection out of our Officers and Employees and its domestic group companies. As a result of the questionnaire, responses from a total of 6,383 people were received.

(3) Establishment of a hotline

During the period from October 1 to October 19, 2018, in order to collect relevant information, the external law firm established a dedicated hotline for the Officers and Employees to report any quality-related improper act to the external law firm, in addition to our regularly operated system for whistle-blowing.

(4) Review of materials

In the course of the Investigation, we provided the external law firm with a wide variety of materials that were deemed necessary by the external law firm in order to achieve the objective of the Investigation, including the organizational chart of the Group, materials related to the product outline, delivery specifications containing the customer specifications, test instructions containing test conditions and testing methods, etc., production and test flow drawings, test results records, test reports, responses and reports related to the Third Quality Self-Inspection prepared at each Inspected Location based on the request from the external law firm, resumes and personnel ledgers of the Officers and Employees belonging to the Group, various internal regulations of the Group, minutes and materials of our internal meetings, materials of training sessions and seminars for employees on the subject of compliance, materials related to our company history, a list of received whistle-blowing reports, and other various materials prepared by the Group upon request by the external law firm. The external law firm reviewed all of such materials.

(5) Analysis and review of electronic data

When the external law firm judged that it was necessary to analyze and review electronic data and e-mail messages in order to investigate, in respect of the Cases, the awareness of the Officers and Employees belonging to the Group, and their communication and the existence or

non-existence of concealment, based on such assessment, digital forensics experts then collected necessary data from the personal computers leased to the persons to be investigated for his/her use at work, and/or collected and preserved the electronic data stored on the file server of the Group and the electronic data stored on the e-mail server of the Group, and provided the external law firm with the 122,602 electronic files after having compiled them into a database. Such data was then reviewed by the external law firm.

(6) Interview with related parties

The external law firm directly interviewed the persons responsible for inspections and checks at the Inspected Locations, other Officers and Employees whom the external law firm deemed necessary to conduct interviews with in order to verify the implementation of the Third Quality Self-Inspection and the validity and appropriateness thereof, and the Officers and Employees who were deemed to be involved in, or who were deemed to be aware of, any of the Cases, and the Officers and Employees whom the external law firm deemed necessary to interview for the purpose of the Investigation (a total of approximately 680 persons).

(7) Site visits

In order to grasp the actual situation of the Cases and to carry out document review and interviews, attorneys from the external law firm visited the manufacturing sites and other locations where the existence of the Cases was confirmed, and checked the manufacturing facilities and the working environment of the Officers and Employees.

Having been thoroughly conducted in the above-mentioned manner, the Investigation was completed on April 19, 2019.

Although the Investigation took longer than originally anticipated, we considered it an indispensable process for deliberate and careful examination of root causes, including fact finding and background, in respect of the individual cases of impropriety, in order to clarify the entire picture. Therefore, we have fully cooperated with, and engaged in, the Investigation.

We extremely regret that it was not possible to clarify the entire picture of the Cases without conducting several quality self-inspections and without the thorough investigations by the external law firm since October 2017, and that we were required to spend such a long time to this date analyzing the causes of the Cases as a whole and examining remedial measures to address across the Group to prevent recurrence. We would like to express our sincere apologies again.

Based on the report of the Investigation that we received from the external law firm, we hereby announce, as set forth below, the outline of the facts that we came to be aware of in respect of the Cases, an analysis of causes we examined, and the measures to prevent recurrence we have

developed.

2. Summary of Facts Pertaining to the Cases, etc.

The outline of the Cases revealed as a result of the Investigation (including the Cases announced on August 31, 2018) is as follows:

Types and Number of Types of Affected Products:	75 types of products, including wires, parts, and components for power transmission and distribution; cables for industrial; cables and components for communication; and etc.										
Types and Number of Cases of Impropriety:	<table border="0"> <tr> <td>Non-performance or insufficient frequency of some inspection items:</td> <td style="text-align: right;">47 cases</td> </tr> <tr> <td>Discrepancies with specifications or quality control process charts:</td> <td style="text-align: right;">20 cases</td> </tr> <tr> <td>Recording of results different from the actual results in the test and inspection documents:</td> <td style="text-align: right;">68 cases</td> </tr> <tr> <td>Failure to submit prior application for change of manufacturing method:</td> <td style="text-align: right;">17 cases</td> </tr> <tr> <td>Total:</td> <td style="text-align: right;">152 cases</td> </tr> </table>	Non-performance or insufficient frequency of some inspection items:	47 cases	Discrepancies with specifications or quality control process charts:	20 cases	Recording of results different from the actual results in the test and inspection documents:	68 cases	Failure to submit prior application for change of manufacturing method:	17 cases	Total:	152 cases
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Total:	152 cases										
Number of Relevant sites:	15 locations (4 locations of our company and 11 subsidiaries)										
Period during which existence of the Cases was Discovered	From October 1986 to March 2019										
End-users*	99 companies.										

In the Announcement on August 31, 2018, we announced that there were a total of 70 Existing Cases. However, in the course of the subsequent Investigations, the following facts were discovered as a result of our reassessing what constitutes improper act:

- (i) There were 16 cases that were found not to fall under improper cases;
- (ii) There were 25 cases that were newly found to fall under improper cases.

Based on the above, the number of Existing Cases (cases recognized in the course of the Quality Self-inspection in October 2017 and the Quality Self-inspection in June 2018) to date is 79.

In addition, the following was discovered:

- (iii) There were 73 cases (the “New Cases”) identified as improper cases, which were discovered during the third Quality Self-inspections, Questionnaires, establishment of a

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\* In some cases, the relevant products were indirectly supplied, and customers which are intermediate suppliers (79 companies) for the end-users in such indirect supply are excluded. Products for use in general are also excluded.

hotline, and interviews, which were conducted after the above-mentioned Announcement on August 31, 2018. In the New Cases, there were no improper cases related to products with JIS marks and products for use in general.

Therefore, the total number of improper cases that have been identified in the Investigation, including both Existing Cases and the New Cases, is 152.

Even after the Announcement on August 31, 2018, there were cases in which improper acts continued to be committed until instructions were given by an external law firm. The reason is that with respect to the New Cases, which were discovered in the investigations, etc. conducted after the announcement on said date, there are some cases which we, Fujikura Ltd. (head office), identified improper acts only after the report from the external law firm and corrected them. We would like to express our sincere apologies for the fact that improper acts continued to be committed even after the Announcement on August 31, 2018. As of April 19, 2019, when the Investigation was completed, improper acts ceased to be conducted in all the Cases.

The number of customers who fall under the category of customers impacted by the Existing Cases was 66 as of the Announcement on August 31, 2018. However, the following facts were discovered:

- (i) The number of customers (6 companies) who were decided not to fall under the category of customers impacted by improper cases in (i) above was reduced, and three of our group companies, which had previously been included, were excluded from the number of customers to which explanations should be made.
- (ii) The total number of customers was increased by 19 companies, including customers who were newly decided to fall under the category of customers impacted by improper cases in (ii) above and customers who were newly recognized to whom explanation should be made in the process of scrutinizing the Existing Cases.

Therefore, the total number of the customers that fall under the category of customers impacted by the Existing Cases is 76.

On the other hand, the following facts were discovered:

- (iii) There were 23 customers, to whom explanation should be made as they are subject to the New Cases.

Therefore, the total number of customers who fall under the category of customers impacted by improper cases, including the Existing Cases and the New Cases, is 99.

### 3. Progress in Explanation to Customers and Confirmation of Safety

In addition to the Existing Cases, with respect to the New Cases, we have also explained the details of the Investigation and the facts revealed during the process of the Investigation to customers involved in the Cases, and have consulted with them about how to take immediate measures and

corrective measures.

With respect to the products already delivered, we have taken measures such as recalling, replacing, or repairing based on consultations with the customers and also taken measures such as provision of data and related information necessary for continuous usage of the products. As for the products to be delivered, we are continuing with delivery following request from the customers and implementing the necessary measures. However, in the cases where it will take time to implement the measures, we have consulted with the customers and have implemented measures such as stopping shipments.

The status of progress in providing explanations to customers and confirming performance, soundness, and safety of the relevant products as of today is as follows:

A: Customers have completed confirmations on performance, soundness, and safety of the relevant products

B: Customers are currently in the process of confirming performance, soundness, and safety of the relevant products, and we have received their opinion that there are no problems for the time being

C: We have explained to customers that we have delivered the relevant product to them

	Total	A	B	C
Number of customers*	99	38	35	26
Composition ratio	100%	38.4%	35.4%	26.3%

We will continue to explain matters, including analysis of the causes of the Cases and measures to prevent of recurrence, and will proceed with the explanation, all of which will be conducted in a careful and prompt manner. In addition, we will continue our explanation and reports to our customers and the progress of confirmations of performance, soundness, and safety of the relevant products.

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\* As stated in the previous note, customers which are intermediate suppliers for the end-users in cases of indirect supply are excluded.



4. Circumstances regarding JIS and ISO certification

(i) Temporary suspension of use of the JIS mark, etc.

In the Announcement on August 31, 2018, we had announced that in the Existing Cases, inadequate procedures for change of the quality control system with respect to examination for continuously holding JIS certification was included. On October 3, 2018, NISHI NIPPON ELECTRIC WIRE & CABLE CO., LTD., our group company, received the “Request for Temporary Suspension of Use of JIS Mark, etc” based on the result of the on-site inspection conducted by the JIS certification authority. Subsequently, on January 31, 2019, it received a notice to the effect that the period for suspension of use will be extended to May 31, 2019.

The JIS numbers and names of the relevant products are as follows:

(The content below is the same as that announced on October 4, 2018)

JIS numbers	Products	Codes
JIS C 3307	600V polyvinyl chloride insulated wires	IV
JIS C 3317	600V Grade heat-resistant polyvinyl chloride insulated	HIV
JIS C 3340	Outdoor weatherproof polyvinyl chloride insulated wires	OW
JIS C 3341	Polyvinyl chloride insulated drop service wires	DV2R, DV3R
JIS C 3342	600V Polyvinyl chloride insulated and sheathed cables	VVR, VVF
JIS C 3401	Control cables	CVV, CEV, CEE, CCV, CCE, CCE/F
JIS C 3605	600V Polyethylene insulated cables	600V CV,600V CE,600V CE/F
JIS C 3612	600V Flame retardant polyethylene insulated wires	IE/F

In the New Cases that were discovered this time, there were no improper cases for any product with the indication of the JIS mark.

(ii) Suspension of ISO9001 certification

The status of temporary suspension of ISO9001 certification with respect to us and our group company is as follows:

Date of receipt of temporary suspension notice	Subjects	Status of examination regarding recovery of temporary suspension	Date of receipt of temporary suspension removal notice
September 13, 2018	All products of Power & Telecommunication Systems Company	Examined	March 8, 2019 (Temporary suspension was removed.)
September 18, 2018	All the products of Fujikura Components, Co., Ltd.	Examined	March 13, 2019 (Temporary suspension was removed.)
November 5, 2018	All the products of NISHI NIPPON ELECTRIC WIRE & CABLE CO., LTD.	Examined	—
March 18, 2019	Out of the products handled by Automotive Products Company, wire harnesses, components of wire harnesses, and enameled steel boards	Not determined (preparing for examination)	—

We have explained to customers of NISHI NIPPON ELECTRIC WIRE & CABLE CO., LTD. and our Automotive Products Company who have been supplied by the aforementioned companies with products relevant to the improper cases that we confirmed the performance, soundness, and safety of the relevant products and they agreed that we will continue to supply them with our products. We will continue to implement corrective measures with the aim of lifting the suspension as soon as possible.

## 5. Causes of the Cases

Based on the report received from the external law firm that conducted the Investigation described above, we believe that the causes of the Cases are as follows:

### (i) Causal analysis of the cases of impropriety

The causes for the occurrence of the cases of impropriety vary depending on individual cases, however, we believe that the causes of the Cases as a whole are as follows: (a) insufficient function of the quality assurance departments; (b) agreement on customer specifications in a rubber-stamping manner; (c) lack of awareness of the quality compliance of the employees with respect to public standards and customer specifications; and (d) insufficient function of supervisory duties by supervisors.

### (A) Insufficient function of the quality assurance departments

- Due to the lack of functional and organizational independence of the quality assurance departments, the quality assurance departments' control with respect to the manufacturing departments and the sales and engineering departments was not sufficiently functioning, which we believe was one reason for the occurrence of the Cases.

As a result of the Investigation, we have found that, presumably as a result the above-mentioned cause, the following cases occurred on many occasions.

### Cases

- The act of shipping products without implementing certain test items or without having testing conducted at the frequency based on an agreement with the customer;
- The act of shipping products manufactured or tested in violation of the specifications or QC process charts agreed upon with the customer (excluding the above-mentioned (i));
- The act of failing to request for changes with respect to the manufacturing site, manufacturing equipment, subcontractor, manufacturing process, materials, etc., of the product in advance despite having agreed with the customer to do so; and
- The act of describing test results that differ from the actual results in the test report, etc., and presenting them to the customer.

We believe that the main cause of the act set forth in (i) above and the improper act conducted by the engineering departments, among the acts set forth in (ii) above, was that the persons in charge of the quality assurance departments failed to fulfill their original quality assurance function, such as the verifying of the content of test instructions by the engineering departments and the examining of the appropriateness of decisions on

shipment after thoroughly checking the compliance with the public standards and customer specifications with regard to various conditions, such as whether or not testing should be implemented, manufacturing and test methods, and manufacturing and test locations. In addition, with respect to the improper act conducted by the engineering departments, such as the act described in (iii) above, if the quality assurance departments verified whether or not it was necessary to make a request to the customer for changes in manufacturing conditions, etc., in light of the customer specifications, and, in the case where any necessary request to the customer was not made, if procedures such as not permitting such changes were taken, it would have been highly likely that such improper act as described above would have been prevented. Furthermore, regarding the act described in (iv) above, the persons in charge of the quality assurance departments failed to confirm in person the fulfillment of public standards and customer specifications, or they described results that differ from the actual results, recognizing that the test results provided by inspectors violated public standards and customer specifications. In this manner, the quality assurance departments were not fulfilling their responsibilities as the departments in charge of quality assurance.

As mentioned above, it can be said that the direct cause of the Cases was that the quality assurance departments, which are the so-called “last checkpoint at the forefront of the actual shipment of products”, failed to fulfill their original quality assurance function.

- We believe that one of the background factors leading to the insufficient function of the quality assurance departments was the lack of procedures for supervision and control of the quality assurance departments with respect to the sales and engineering departments.

For example, we have found the following case existed many times among the cases where improper act was confirmed in the Investigation.

#### Case

Although the product design documents, and the inspection instructions to be referred to by the quality assurance department upon the conducting of inspections, were issued by the (sales) and engineering department, which decided the content of the specifications with the customer, the said (sales) and engineering department prepared incorrect product design documents and inspection instructions that did not fully reflect the details required by the customer specifications, leading to the non-implementation of inspections, or the shipment of products that did not meet the customer specifications. In such cases, there were no established procedures for the quality assurance department

to confirm whether the relevant product design documents and inspection instructions accurately reflected the official standards and customer specifications.

One of the cases attributable to this reason is the following case of the specific usage distribution cables manufactured at the Numazu Works.

#### Case

Although it was stipulated with customers that the material test shall be conducted for the specific usage distribution cables manufactured at the Numazu Works, the relevant material test was actually not conducted from around October 1986 to around March 2015. The testing of this item was not implemented due to the fact that there were cases that, when the person in charge in the engineering department incorporated the content of the specification into the product design document, only the main inspection items were described and some of the inspection items described in the specification were omitted in the product design document.

Further, there were no procedures for the quality assurance department to check, by comparing the specifications and product design documents, whether or not the inspection items were described without shortage, in order to prevent such situation.

• At locations where improper cases were identified, the following cases were often found:

- (i) personnel and equipment in the quality assurance department were insufficient;
- (ii) the inspection process was operated in such a way that the inspection results could be artificially manipulated; and
- (iii) personnel rotation in the quality assurance department was not conducted for many years.

The existence of such problems in the quality assurance department, which is the front line of product shipment for each location, led to the loss of supervisory functions in the relevant division and triggered the improper acts by the relevant division itself, and that could be one of the reasons why the quality assurance department became compromised.

There is a specific example of a case of the shortage of personnel and facilities in the quality assurance department described in (i), with respect to polyvinyl chloride insulated wires, which has been manufactured by NISHI NIPPON ELECTRIC WIRE & CABLE CO., LTD.

#### Case

For the vinyl insulated electric wires manufactured by NISHI NIPPON ELECTRIC WIRE & CABLE

CO., LTD., high temperature insulation resistance testing was required at the time of each shipment. However, the Power Inspection Team did not perform high temperature insulation resistance testing. Despite the fact that testing was not conducted, the results of the inspection of the vinyl insulated electric wires, which are in-house test reports, contained fictitious test results.

At NISHI NIPPON ELECTRIC WIRE & CABLE CO., LTD., the number of personnel in the Quality Assurance Inspection Group, which is responsible for inspections, was 13 as of 2008. However, the number decreased three years later to 12 in 2011 and another three years later to 6 in 2014 because experienced inspectors resigned one after another after reaching retirement age but there were no new employees to replace them. This reduction in the inspection system led to a decrease in the inspection capability itself and was one of the causes of the improper acts such as the omission of inspections.

Other than this case, there were many cases where the cause was insufficiency of personnel and facilities in the Quality Assurance Departments because employees were required to achieve high results despite the decrease in profitability. In the questionnaire conducted this time, 2,031 (31.8%) out of 6,383 respondents responded that “Inspection personnel shortage” is a factor behind the series of the improper acts.

In addition, many of the improper acts identified during the Investigation were caused by the fact in (ii) that the systems were operated in a manner that allowed manipulation of the inspection results in the inspection process as described below.

#### Case

During the inspection process, the inspector manually records the outputted inspection results on the screen of a measuring device, etc. in the inspection reports. Or, while the inspection results are automatically recorded on an internal server or automatically printed on a recording sheet of paper, it was recognized that, since a manual process was used to transcribe the inspection results from a record to a test report, it was possible to edit the test reports afterwards. Therefore, it was recognized that the values written in the test reports possibly differ from the actual measurement values.

Furthermore, as described below, due to the fact in (iii) that the personnel rotation of the Quality Assurance Departments was not conducted for many years, among the improper acts identified during the Investigation, there were many cases in which the improper acts were not discovered for a long time and continued without being corrected.

#### Case

The rotations of the personnel in charge at the Quality Assurance Departments were not sufficiently

carried out and employees were in charge of the same products and/or a single employee or small number of employees handled inspections for a long period of time; i.e., human resources were fixed.

This immobilization of the personnel reduced the opportunity that the improper acts would be revealed through work being succeeded to by employees transferred from other divisions and allowed a single employee or small number of employees to engage in the improper acts for many years.

(B) Agreeing on the customer specifications in a rubber-stamping manner

- At sites where improper acts occurred, it was confirmed that there were many cases where the customer specifications agreed on would not actually be feasible in light of the manufacturing capacity/test capacity possessed by the relevant company and this resulted in the inability to comply with the customer specifications and the improper acts taking place.

It is supposed that, when deciding on the specifications with the customer, we should have fully confirmed and verified whether our manufacturing capacity/test capacity could meet the specifications. If it was confirmed that we do not have such capacity afterwards, we should have asked the customer to change the specifications. However, in our Group, the following was discovered:

- (i) In some cases, our manufacturing capacity/test capacity was not sufficiently confirmed and verified prior to receiving orders and manufacturing; and
- (ii) For the orders that had already been received, it was difficult to respond to the customers with requests for changes in the specifications.

As a result, we were forced to receive orders for and manufacture products based on the customer specifications that were not commensurate with our manufacturing capacity/test capacity and the inspection results for products frequently did not meet the customer specifications, which resulted in the improper acts taking place such as the inclusion of descriptions that differ from the actual inspection results of the relevant products. Therefore, we can say that one of the direct causes of improper acts are that each site of our Group agreed to the customer specifications in a rubber-stamping manner without fully confirming and verifying the manufacturing capacity/test capacity of said site of our Group, or requesting that the customers change the specifications.

With regard to (i) above, as stated above, in deciding the specifications of the product with the customer, it is supposed that it is necessary to fully consider, in advance, whether or not it is possible to manufacture products that meet the specifications required

by the customer in light of the manufacturing capacity of the site, and whether or not it is possible to perform the testing required by the customer in light of the test capacity of the site. In this regard, the methods used to determine the manufacturing capacity of each site were not uniform and varied from one site to another. In some sites, the number of orders was calculated based on the time necessary for the site to complete each load. However, it was discovered through the Investigation, that, due to insufficient confirmation and verification of the manufacturing capacity and testing capacity in advance, after receiving orders for production many products failed to meet customer specifications. As a result, in many cases it was confirmed that improper acts were conducted. In addition, when ascertaining the testing capacity, even in cases where there was a lack of the specific equipment required for testing or there was a shortage of personnel for testing, in some cases it was confirmed that an agreement on specifications was entered into in a rubber-stamping manner with customers, recognizing the above-mentioned shortage. Behind this inadequate confirmation and verification of the manufacturing/test capacity was:

- (i) Lack of communication among the sales and engineering, manufacturing, and quality assurance divisions in deciding specifications;
- (ii) In the first place, no procedures established, under which the quality assurance divisions were involved in the process of determining customer specifications, and, even if the quality assurance divisions were involved in the determination of specifications, since the quality assurance divisions lacked the technical knowledge, the quality assurance divisions could not exercise their check-and-balance function over the sales and engineering department, such as not being able to speak with the sales and engineering department, and just accommodated themselves with the decision-making of the sales and engineering department; and
- (iii) Despite the fact that the specifications were not determined based on sufficient verification, there were cases in which we decided to accept orders for, and manufacture, products without sufficient consideration.

There is a specific example of a case where improper act was committed due to the event described in (i) above, with respect to a product using a special resin manufactured by FUJIKURA COMPONENTS LTD.

Case



Despite the fact that the written specification agreed upon with the customer stated that tensile tests of materials were to be conducted, it was actually difficult to produce the test pieces in-house. Therefore, the products were shipped from around January 2013 to around June 2018 without carrying out the tests. When a test, which had not been conducted, was actually conducted, it was confirmed that the performance of the product satisfied the specifications required by the customer. This is a case that could have been avoided if confirmation and verification as to whether or not test specimen was produced was sufficiently made at the time of acceptance of the order.

With regard to (ii) above, it is supposed that, even if the specifications were agreed upon with the customer, in the event that it was found that the ability to consistently supply the product would be difficult due to the frequent occurrence of defective products in the subsequent manufacturing and inspection processes, we should have explained to the customer to that effect and to request for changes in the specifications, extension of the delivery deadline, concession, etc., because it would be difficult to actually ship products that meet the specifications required by the customer. However, in reality, there were cases in which employees were hesitant to make requests to customers for changes in specifications because they feared the risk of losing orders by making such requests for changes because customers may switch to competitors, or in some cases the employees were not even aware that they were supposed to make requests to customers for changes in specifications. In particular, in negotiations with customers related to changes in specifications, it is probable that we were extremely conscious of the fact that we were in a disadvantageous position as a manufacturer. Further, in cases where improper acts were committed in the past with regard to products that had been delivered over a long period of time based on the specifications already determined, there was a risk that the fact that the products already delivered did not meet the specifications required by the customer could be revealed, and there was a situation in which requests for changes to the specifications could not be made even if we wanted to. Employees at each site were aware that there was a demand for securing earnings of the company, and that the earnings of each in-house company depended to a certain extent on large customers. The fact that these employees were aware that there was a need to strictly refrain from any actions that would harm or render worthless the ongoing relationships built with the relevant customers was a factor behind the creation of an environment in which requests for changes in specifications and other changes were difficult to make.

(C) Lack of awareness of quality compliance with respect to employee public standards and customer requirements

• We consider that lack of awareness of quality compliance with respect to employee public standards and customer requirements was also the cause of the cases of impropriety.

It was a natural requirement for us to comply with public standards and customer specifications in our quality assurance operations. However, there were employees who mentioned that “an environment existed that accepted being off a little from the specification as OK as long as there is no problem with the safety of the product,” and the “supervisors told us that shipping would be a priority rather than compliance with each item specification”. Employees who performed or recognized the improper acts had a wrong idea regarding quality assurance, such as “it was ok as long as they could avoid problems with product functionality and performance” and such employees definitely lacked a basic understanding that quality assurance requires compliance with public standards and customer specifications.

We can give the following reasons behind the lack of awareness of quality compliance found in employees:

- (i) Insufficient training on quality compliance within the Group;
- (ii) Disciplinary action had not been taken appropriately against past violations of quality compliance; and
- (iii) Our top management emphasized the term “quality” in the internal regulations and the president's message dissemination, etc., however, explanations were insufficient on how important compliance with public standards and customer specifications is ensured as a part of “quality assurance” and “quality compliance”.

With respect to (i) above, we had no quality compliance training for employees except for the new employee training that was established in 2017. For this reason, there were no opportunities for us to convey to its employees the basic requirement of compliance with public standards and customer specifications in quality assurance activities or occasions to provide the employees the company-wide unified approach to “quality”. As a result, it may have given birth to the mindset that “there would be no problem if the functions and performance of the product were guaranteed” and that “there would be no serious problems if I did something improper because it is being done by the entire department.”

Regarding (ii), for example, between 1998 and 2017, we only had one case on August, 2012 that was subject to disciplinary action for quality compliance violations. We had

not taken appropriate disciplinary action against these incidents, despite the fact that in the past we had been informed by whistle-blowing and by other means about conducts that were similar to the Cases, such as entering results which differed from actual test results. As a result of the lack of appropriate disciplinary action against quality compliance violations, employees were unable to fully recognize the importance of quality compliance. Moreover, employees may have misinterpreted that the company was lenient with quality compliance violations, which may have resulted in the gradual loss of awareness with respect to quality compliance among employees.

Furthermore, the circumstances described in (iii) is considered to have led to the mistaken understanding that, for example, (1) if the property and safety of the products are not affected, there is no violation even if the customer's specifications are not satisfied; (2) it is the company's mission to place more emphasis on securing profits and reducing costs than on compliance with public standards and customer specifications; and (3) the Group should place priority on following our instructions rather than observing the customer's specifications.

- Employees easily relied on the practices passed down from their predecessors

Among those who committed or recognized the improper acts, there were quite a few who did not even question these acts, having gotten used to the improper acts because their superiors and colleagues were also committing them.

In the Quality Assurance Departments where they essentially check whether the products to be shipped meet public standards and customer specifications, we came across employees in charge of preparing the test results who did not understand the significance of the test. They simply checked to see whether the test results were consistent with the original data entered in the test report, without checking the public standards or the customer's specifications themselves. According to a questionnaire survey, 1,956 out of 6,383 employees (30.6%) responded as a possible reason for the improper acts that they were "simply instructed to perform the work and did not recognize the work as acts of impropriety." This appears to indicate that at some of the sites where cases of impropriety had occurred, the improper acts had become so much a part of the operations and were almost considered to be part of the operational flow and manufacturing process.

An example of this improper act is the single-mode fiber optic cable manufactured at the Sakura Works.

#### Case

For the inspection of single-mode optical fiber cables, transmission loss testing must be conducted on finished goods in accordance with the customer requirement specifications. However, from October 1, 1999 until around August 2018, we shipped the products after conducting our standard transmission loss tests but such transmission loss tests were not conducted according to the required wavelength in the customer requirement specifications. In addition, when the inspection results were requested, the results of the transmission loss tests at the wavelengths requested by the customers during the in-process tests of the relevant products were substituted for the results.

It was confirmed that all the inspectors who were in charge of the transmission loss tests had conducted our standard transmission loss tests as the finished goods inspection in accordance with our inspection instruction book.

- Further, the employees' attitude towards the customer requirement specifications was lax and with some employees, it was commonly believed that, if meeting the specifications was not essential to the properties and safety of the products, non-satisfaction of the customer requirement specifications would not be a problem.

#### Case

In respect of the single-mode optical fiber cables described above, the parties concerned stated that "Increased loss due to cabling can be sensitively detected as an increase in loss in long-wavelength measurements, and therefore, no increase in loss would occur at short-wavelengths if there was no problem in the long-wavelength inspections. Also, the transmission loss at short-wavelengths was measured during the pre-cable process and we considered that such measurement was enough". Therefore, regarding the items for which the customers require compliance, the engineering, manufacturing and quality assurance divisions did not consider them to be important in light of the characteristics and safety of the products and therefore, it was not desirable to comply with the requirements that were not important in light of the characteristics and safety of the products.

#### (D) Insufficient function of supervisory duties by supervisors at site

- Even if an employee attempts to commit an improper act, if the supervisor is attentive, the supervisor would have been able to exercise supervisory functions to prevent it. However, through the Investigation, it must be concluded that the supervisors failed to carry out their responsibilities in many cases as shown below. There were also many similar cases that were identified.

#### Cases

The improper acts were carried out mainly at the instruction of the supervisors of each workplace (site), such as the chiefs, group managers (section managers) and assistant managers.

The improper acts were committed with the express or implied approval of the supervisors.

Because the supervisors had no interest in the work of their subordinate, the supervisors missed opportunities to detect the improper acts of their subordinates.

Even when the supervisors checked the content of the inspection reports and approved them, it became common for the supervisors to approve them without sufficiently checking the content thereof.

(ii) Other Causes to Consider

We believe that the causes of this case, which are analyzed from individual improper cases, are as described above, but we also consider that the following were underlying causes of this case.

(a) Corporate culture that prioritizes securing profits

- The Group as a whole was faced with a strong demand to reduce costs and secure earnings, creating a situation in which quality compliance tended to be neglected.

(b) Company-wide governance and the deficiency of the systems

- The quality compliance control function and the quality audit system of the head office were inadequate, there was virtually no department in place to supervise the quality compliance system and the “quality assurance” operation of the entire group, and conduct effective improvement.

- In comparison with the Business Department System (vertically divided), the interdivisional communication of the Company System was weak between each in-house company and the head office, and other group companies in identifying problems and risks concerning product quality that had occurred.

- The Group had a whistleblowing system, however, there being only few reports related to quality compliance violations, there was an insufficient collection of information on quality compliance.

- There was a lack of clear messages from the top management to employees that quality compliance should be regarded as a priority, and there was a lack of a positive attitude to rectify the situation in (a) above.

We are keenly aware of the fact that at the frontline of product shipments, cost reductions and earnings were prioritized over quality compliance amid the growing organizational structure that accompanies business expansion and changes in the scope of our business. Based on the individual analyses described above, we are making every effort to restore the trust of our customers and many other stakeholders by promptly and accurately implementing corrective measures, including the following measures to prevent recurrence.



## 6. Measures to Prevent Recurrence

In response to the recommendations of the outside law firm that conducted the Investigation above, we formulated the following measures to prevent recurrence. Corrective measures regarding the Cases, including measures to prevent recurrence, were discussed at the Risk Management Committee, which is mainly composed of executive directors, and at the Executive Officers Meeting and such corrective measures were ultimately approved by the Board of Directors after discussion.

In addition, while the Investigation is being conducted, some measures to prevent recurrence have already been implemented in advance.

### (i) Governance Reforms

#### (a) Management and Establishment of Governance Systems that Place Quality Compliance at the Basis of Corporate Governance

- We will place the maintenance of quality compliance at the basis of corporate governance across the Group and establish appropriate governance systems, which will be under the responsibility of the management team.
- We have implemented organizational reforms at the beginning of FY 2019 (as of April 1, 2019) and set the Quality Assurance Departments under the direct control of the President.

#### (b) Ensuring the Effectiveness of Quality Assurance across the Group

- In order to strengthen the quality assurance systems and ensure the independence of the Quality Assurance Departments, we carried out the reorganization of the Power & Telecommunication Systems Company on January 1, 2019. The quality assurance organizations (divisions, offices, and sections) that used to be under the control of each business department were transferred and are under the Quality Assurance Departments, which oversee the quality assurance functions of the in-house company. The same reorganization will be carried out regarding the other in-house companies.
- As stated in (i) above, we will set the organizations that oversee the quality assurance functions at each in-house company under the direct control of the President as sub-organizations of the Corporate Quality Assurance Department (head office).
- In order to ensure the independence of the Quality Assurance Departments, we will establish, at the Quality Assurance Departments, a system that enables us to plan and implement personnel rotations, promotions, educational programs and acquisitions of public qualifications.
- We will clarify the scope of the responsibilities, authority, and reporting routes (reporting lines) of the administrators in each of the Quality Assurance Department.
- We will establish the procedures for the Quality Assurance Department, the

independence of which is to be ensured, to supervise and check other departments such as (Sales) Engineering (Design) Departments and Manufacturing (Inspection) Departments.

(c) Improvements to the Quality Compliance Systems at the Head Office

- In order to strengthen the quality auditing functions at the head office, on October 1, 2018, we established a special organization within the Corporate Quality Assurance Department (head office) to continuously and regularly conduct quality audits, and increased the number of auditors exclusively engaged in the quality audits.

- We set forth below the items to be checked in the quality audits to be conducted by the Corporate Quality Assurance Department (head office) or the Quality Assurance Department of each in-house company.

- Whether each manager understands the structural problems of his/her organization (workplace) and takes actions to resolve these problems.

- Whether the structures to comply with the terms of the agreements with customers are continuously improved. Specifically, in the quality audits with respect to (Sales) Engineering (Design) Departments and Manufacturing (Inspection) Departments, it should be confirmed whether the products are designed and manufactured in a way that conforms to the agreements with customers, specifications and the quality control (QC) process chart.

- The voluntary inspections by the Corporate Quality Assurance Department (head office) will continue on an ongoing and regular basis.

(d) Review of the Management of our Group Companies and Strengthening of the Information Sharing between the Head Office and our Group Companies

- The Corporate Quality Assurance Department (head office) will monitor the quality assurance systems of our group companies, understand their status, and maintain and construct the quality compliance systems for the entire Group.

- The Corporate Quality Assurance Department (head office) will conduct the quality audits in respect of our group companies on an ongoing and regular basis.

(e) Strengthening of the Quality Assurance Systems at Each Site

- On December 25, 2018, the Corporate Quality Assurance Department (head office) and the Corporate Production Department jointly launched the project aiming to automate the design, manufacturing, and inspection processes of each site. The project promotes the introduction of systems that collate the specifications, design documents, drawings and standards agreed on with customers with internal documents such as the Product Design Documents and Inspection Standards and that eliminate human operations by digitizing the results of approvals/denials. The progress of the project will



be investigated through periodic management reviews.

- We will check the soundness of the inspection personnel and facilities for each inspection process at each site, formulate a roadmap for improvements if there are any deficiencies, and will conduct follow-up through management reviews.
- We will further promote personnel rotations in the Quality Assurance Department, (Sales) Engineering (Design) Departments and Manufacturing (Inspection) Departments. In addition, we will try to develop multi-skilled inspectors to prevent inspectors from becoming immobile.

(ii) Proper Understanding of Manufacturing Process Capabilities and Inspection Capabilities and Verification of Specifications Requested by Customers

(a) Proper Understanding of the Manufacturing Process Capabilities and Inspection Capabilities and Verification at the Time of the Receipt of an Order

- We will revise the design review (DR) that is conducted at the time of the receipt of an order and make efforts to properly understand the quality and specifications requested by customers, manufacturing process capabilities, and inspection capabilities. The results of the design review will be shared not only within the Sales Department and (Sales) Engineering (Design) Department, but also within the Manufacturing (Inspection) Department and the Quality Assurance Departments.
- We will thoroughly explain that quality compliance has priority over securing profit to members of the Board of Directors, managers and general employees.

(b) Improvement of Relationships with Customers

- With regard to relationships with customers, we will keep in mind that quality compliance has priority over securing profit. At the same time, we will explain the quality and performance of our products to our customers more accurately, promptly, and carefully than ever, so that problems with quality compliance will not occur again.

(iii) Improvement of Awareness of the Quality Compliance

(a) President's Message to the Effect that the Quality Compliance Should Always Be Prioritized

- We have reviewed and changed the "Fujikura Quality Policy" by adding contents regarding quality compliance as of April 1, 2019.
- Although the internal explanation material by the President always starts with the message regarding compliance, we will emphasize the thorough quality compliance, including compliance with customer requirements and specifications.

(b) Periodic Quality Compliance Training for Officers and Employees

- Special education on quality compliance, including the infiltration of the “Fujikura Quality Policy” changed as of April 1, 2019, was provided at each workplace. 6,170 relevant officers and employees (regular employees)<sup>1</sup> have submitted a written oath of quality compliance to us.

- Power & Telecommunication Systems Company has obligated all workplaces to conduct education on the Code of Conduct to follow in order to prevent recurrence of the Cases and already conducted such education. We will further horizontally expand these educational programs to other In-house Companies and conduct them on a regular and ongoing basis.

- To date, the Group has conducted training and e-learning on antitrust laws and anti-corruption laws as a part of its compliance education activities. In addition to this, we will train employees thoroughly to the Code of Conduct related to quality compliance, including compliance with customer specifications. (At the time of completion of e-learning, participants are required to submit a written oath of compliance to us.)

(c) Implementation of Questionnaire Survey on Awareness, Implementation and Continuation of Dialogues with On-Site Employees

- We will conduct a periodic organizational survey (questionnaires to measure the engagement to organization) regularly and continuously with additional questions relating to the quality compliance and will provide feedback to management and the general managers of workplaces.

- We will create opportunities where the President himself can convey the opinions of management through communications with frontline members and the management team can hear opinions from the frontlines, by making use of some opportunities such as “Group Executive Committee”, which is held in every site and in major group companies every year. This will enable us to reduce the distance between management and the frontline and create open corporate culture. Dialogues (group talks) with on-site members at the Power & Telecommunication System Company and its affiliate sites have been held by the President 19 times in total in five sites.

(d) Active Provision of Incentives for Personnel Evaluation

- Although, personnel evaluation already has “integrity” as an evaluation item, we will further clarify specific evaluation items and action standards for quality compliance.

- We will appreciate active engagement with quality compliance better, while strictly evaluating compliance violators.

(e) Execution of Strict Disciplinary Action against Violation of Quality Compliance and

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<sup>1</sup> All employees of the sales, technology, manufacturing, and quality assurance department of our group companies in Japan and overseas who got special education on quality compliance (and are able to read and write Japanese)

#### Internal Announcement Thereof

- We will clearly state violations of the quality compliance as a cause of disciplinary action against employees in the Company Rules and will take strict measures against violations.
- We will clarify the standards for disciplinary actions (disciplinary committee disciplinary guidelines, etc.) including leniency system and announce the result of disciplinary actions against compliance violations in the company.

#### (f) Review of the Whistle-Blowing System

- While we have already explained in the dialogues between the President and workplaces, we will further convey strong messages from the President to the entire Group to actively report any problems related to the quality compliance using the whistle-blowing system.
- In order to spread the whistle-blowing system to front-line employees at each Sites, we will develop a whistle-blowing system via paper documents in addition to the current e-mail and intranet.
- We will hold worksite explanatory meetings for employees to deepen their understanding of the whistle-blowing system (information on whistle-blowing, how to protect whistle-blowers, the leniency system, and how to investigate cases) to the manufacturing site.

#### (g) Continued Implementation of Questionnaires on improper Activities relating to the Quality Compliance

- We will implement quality compliance surveys conducted in the Investigation on an ongoing and regular basis.

#### (h) Passing Down the Lessons

- We will create a training program (workshop-style) to pass down what we learned from the Cases to officers and employees, and conduct the training continuously and regularly at each site and our group company. To date, we have implemented these measures at four Departments of us.

We will steadily implement these measures to prevent recurrence. At the same time, we will continue to provide guidance and supervision to our group companies to ensure that measures to prevent recurrence are implemented. In this way, we will improve governance and strengthen and radiate our quality control system in the Group. In addition, we will continue to report on our progress.

## 7. Return of Compensation of Directors

Although Directors' involvement in the Cases was not recognized, they will return a part of their compensation in order to clarify management responsibilities with respect to the fact that they could not prevent, discover and deal with the Cases earlier.

Positions	Amount to be returned
President CEO	Amount equivalent to 50% of monthly compensation in the fiscal year 2018 for 3 months
Senior Managing Director	Amount equivalent to 40% of monthly compensation in the fiscal year 2018 for 3 months
Managing Directors (7 individuals)	Amount equivalent to 30% of monthly compensation in the fiscal year 2018 for 3 months

## 8. Impact on financial results

The impact of the Cases on the consolidated financial results of the Group for the fiscal year ended March 31, 2019, was partially incorporated into the forecast of consolidated financial results for the fiscal year ending March 31, 2019, in the third quarter results announced on February 4, 2019. If revision becomes necessary in the future, we will announce such revision in a timely manner.

END of this document