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Report summary of final vehicle inspection issue at plants in Japan

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For immediate release

Report summary of final vehicle inspection issue at plants in Japan

YOKOHAMA, Japan (Nov. 17, 2017) – Today, Nissan Motor Co., Ltd. submitted a detailed report to the Japanese Ministry of Land, Infrastructure, Transport, and Tourism (MLIT) regarding nonconforming final vehicle inspections at its plants in Japan and countermeasures to prevent recurrence.

Japan's final inspection system ("*kanken*") is a standard based on Japanese laws and regulations. Based on this system, Nissan carries out final inspections for Japan-market vehicles on behalf of MLIT. The *kanken* issue demonstrated a failure to fulfill that obligation, which in turn damaged MLIT's trust in Nissan.

Nissan takes this matter very seriously. Nissan is committed to putting safety first, promoting compliance, carrying out the countermeasures thoroughly (including those already implemented) and making a concerted effort to regain the trust of customers and stakeholders in Japan.

Nissan regrets any inconvenience or concern this has caused to its valued customers and other stakeholders in Japan.

Summary of materials

1. Findings of the fact-finding investigation and conclusions of discussion of recurrence prevention measures

- Nissan asked Nishimura & Asahi, a third-party law firm, to conduct an investigation into the facts and causes, including the operations of the past nonconforming *kanken* for Japan-market vehicles, in order to implement comprehensive measures to resolve the issue.
- Nissan takes the issue very seriously and will closely examine the findings of the investigation and the analysis of the causes and background. Nissan will work to ensure there is no recurrence of the issue.
- Based on the investigation results, Nissan has prepared a summary of the findings and countermeasures to prevent recurrence.
- Details of the improper response displayed during on-site inspections by MLIT at Nissan Shatai Shonan, Oppama Plant and Nissan Shatai Kyushu starting on Sept. 18 are included in item 2.1.3 on Page 3.



2. Findings of the investigation regarding *kanken* issue, causes, and recurrence prevention measures (summary)

2.1. Findings

2.1.1. Final inspection tasks conducted by final inspectors in training and other workers

- At the five vehicle manufacturing plants, excluding Auto Works Kyoto (Oppama, Tochigi, Nissan Motor Kyushu, Nissan Shatai Shonan, Nissan Shatai Kyushu), it had become a normal practice for final inspectors in training to conduct *kanken* tasks mainly in the tester inspection process. The final inspectors in training used final inspector name stamps borrowed from a registered final inspector to stamp *kanken* sheets. In some of the plants, a ledger was used to manage and enable inspectors to lend and borrow the final inspector stamps. There were cases in which foremen and instructors purchased and lent spare final inspector stamps to final inspectors in training without notifying the final inspectors whose names were on the stamps.
- While differing in form, it appears that nonconforming final inspections became the norm by the 1990s at many of the plants. The investigation also noted the possibility that such practices may have existed at the Tochigi Plant since 1979.
- MLIT conducted an on-site investigation of the Nissan Shatai Shonan plant on Sept. 18, where it discovered nonconforming *kanken*. Although Nissan took preventive measures by Sept. 20 to address the issue, the investigation team and Nissan's internal investigation team later discovered that at Nissan Shatai Shonan, its Oppama and Tochigi plants, and at the Nissan Kyushu and Nissan Shatai Kyushu plants, certain parts of the *kanken* process were still being carried out by final inspectors in training and other employees. They also discovered that some of the *kanken* check items had been transferred from the *kanken* line to other lines, without notifying MLIT.
- At multiple plants, part of the *kanken* had been changed without revising the *kanken* sheet and notifying MLIT, and some of the *kanken* tasks were carried out within different processes, such as the marketability inspection and the off-line inspection. As a result of such changes, some employees other than final inspectors performed *kanken tasks*. In addition, at the Tochigi Plant, one of the *kanken* tasks (welcome light turning off), might not have been performed due to such changes.
- Specific examples of final inspection tasks performed by final inspectors in training and other employees include:
 - Steering angle (Nissan Shatai Shonan)
 - Air bags, etc. (Oppama)
 - > Anti-theft alert; welcome light; door lock striker (Tochigi plant)
 - Wheels, suspension springs and automatic headlight control system (Nissan Motor Kyushu)



Part of inspection (Nissan Shatai Kyushu)

2.1.2. Deficiency in the nomination process of final inspectors

 The investigation revealed that the process to register final inspectors did not follow the internal registration and training standards at each plant.

Specific examples:

- 1) The required classroom time for registration as final inspectors was shortened.
- 2) At multiple plants, the following was found to have occurred in the exams that followed the classroom period:
 - (1) The answers were distributed with the exam papers.
 - (2) People took the exam using their textbooks.
 - (3) Answers were corrected before submitting the papers.

2.1.3. Improper response to audits

- At each vehicle manufacturing plant, based on the guidance of foremen who are supervisors and instructors (final inspectors in a leadership role), the practice of final inspectors in training conducting *kanken* tasks was concealed for many years by assigning final inspectors in training who usually conducted *kanken* tasks to other tasks, or removing them from the *kanken* line during regular audits by MLIT and Nissan headquarters, and ISO certification assessments. In addition, based on instructions from *kakaricho* (general foremen), foremen gave final inspector badges to final inspectors in training to wear during the audits while they were conducting *kanken* tasks. These practices had become the norm.
 - As previously mentioned, besides regular audits, MLIT carried out specific onsite inspections at Nissan Shatai Shonan starting on Sept. 18 and at the Oppama Plant on Sept. 26 and followed by Nissan Shatai Kyushu and the others. During these inspections, some employees behaved inappropriately, such as by providing inaccurate reports and uncooperative responses, in order to conceal the fact that inspectors other than final inspectors were carrying out *kanken* tasks and that stamps were lent against the rules. There were also inaccuracies in the information given regarding when final inspectors were assigned to instruct final inspectors in training on a one-on-one basis, and in order to conceal facts, there was modification to and deletion of relevant documents.
 - When the issue at Nissan Shatai Shonan was discovered, Nissan instructed all the plants to ensure that only final inspectors conduct the *kanken* and to ban the lending of other inspectors' stamps. However, the company struggled to fully grasp whether there were any technical issues and could not understand the complexity of what was occurring at the plants. The company failed to conduct a thorough initial response, such as stopping all the production lines and re-examining the complete situation. This resulted in the issues continuing at the Oppama Plant and Nissan Shatai Kyushu.



2.1.4. Others

The investigation found no such incidents at Auto Works Kyoto.

2.2. Causes and background

2.2.1. Shortage of final inspectors

- On a total headcount basis, enough workers were assigned to run the entire respective plant, including the *kanken*. However, the *kanken* is carried out on behalf of the Japanese government. This brings special responsibility, and this responsibility in particular was not properly considered when deciding staffing for the *kanken*. Headcount reduction rates allocated to each plant applied uniformly across the whole plant, and special consideration was not given to secure final inspectors.
- In addition, in the process of making headcount adjustments, management of the plants and headquarters did not take into account that a number of months were required to train a final inspector and that instructors were necessary to train and supervise final inspectors in training.
- Therefore, the plants had a shortage or no surplus (no one to stand in if a final inspector was absent) in the number of final inspectors.

2.2.2. Reduced respect for the kanken

• Many of the final inspectors were aware that assigning final inspectors in training to the *kanken* was against Japanese regulations. The final inspectors in training were assigned to conduct *kanken* when they were judged competent while vehicle manufacturing plants monitored their skills. In addition, the plants were not sufficiently aware of the importance of conducting the *kanken* on behalf of the government, and their respect for the rule was deficient.

2.2.3. Awareness of higher-ranking employees

- *Kakaricho* and foremen knew that final inspectors in training were carrying out *kanken* tasks at the plants. However, the managers and above in charge of plant quality assurance were completely unaware.
- Plant managers did not have visibility of the day-to-day operation of the *kanken* line, and they relied on *kakaricho* and foremen.
- Related persons at headquarters and plants were not mindful of the *kanken*, and this undermined respect for the system.

2.2.4. Inconsistencies between standard operation manual and *kanken* chart

• At the Oppama Plant, the Tochigi Plant, Nissan Motor Kyushu and Nissan Shatai Kyushu, revisions to the standard operation manual resulted in



discrepancies between that and the *kanken* sheet. As a result, some of the *kanken* tasks were done by final inspectors in training and other employees. Also, some of the *kanken* tasks were not performed.

• At each plant, there was no specific rule to determine who needed to notify whom when a revision was made to the standard operation manual and no specific work flow to reflect the change on the *kanken* sheet.

2.2.5. Disconnect between standards and the reality of the *kanken* line, unclear standards

- The content of the internal registration and training standards, such as the period required for educational assistant work, did not match the reality of the *kanken* line, making the rules appear unreasonable. This gave some inspectors a sense of justification for their actions.
- As the registration and training standards did not clearly define the processes to register and train final inspectors, unwritten registration rules and training processes emerged. As a result, employees involved downplayed the real registration and training standards so that they no longer functioned properly. This resulted in the ongoing involvement of final inspectors in training and other employees in the *kanken*.

2.2.6. Distance between the shop floor and the management

- There was a distance between the workers on the shop floor conducting the *kanken* and the management of the plants and headquarters. This made it more difficult for the management to identify and solve the issue.
- The management of the plants and headquarters was not aware that final inspectors in training were conducting *kanken* tasks.
- Final inspectors did not notify management of the shortage of final inspectors and ask for improvements. In fact, final inspectors concealed the fact that final inspectors in training were carrying out *kanken* tasks.
- The distance between the shop floor and management may have derived from Nissan's culture of respecting the independence of the plants and emphasizing shop-floor issue-solving through ingenuity and achieving goals.
- Interviewed employees were aware of the internal whistleblowing system, however they said that they believed the issues would not be resolved even if they reported them.

2.2.7. Failure to detect the issues through internal audits

One of the reasons for failing to detect the issues was the internal audit system, in spite of the fact that the nonconforming practices had been going on for many years. Due to a lack of specific audit procedure, risk-based audits and systematic evidence retention from audits, effective audits had not been carried out.



3. Countermeasures

3.1. Correction of the kanken line layout and operation

The following action was taken within the *kanken*:

- The on-site inspections by MLIT starting on Sept. 18 revealed that final inspectors used their stamps improperly and lent them to final inspectors in training for them to use. To correct the situation, spare stamps were discarded.
- The stamps have been put under the management of supervisors (*kakaricho* or foremen), and through keeping a record of usage, they are under tighter control. The operational rules are defined in the standard operation procedures.
- At all the plants, the *kanken* has been isolated, with a security gate in place through which only final inspectors can enter. To further increase security, Nissan plans to introduce face-recognition access control by the end of FY2017.
- The color of the final inspectors' caps has been changed to red to clearly identify them. The photos, qualifications, and inspection tasks of the final inspectors on duty are shown on the bulletin board.
- As some non-final inspection tasks are intentionally mixed in the *kanken* line (the so-called "tester line"), only final inspectors are assigned to that line, and they will carry out all processes on the line including the non-final inspection tasks.
- Traditionally, practical training of final inspectors had been done within the tester line of each plant. To ensure that only final inspectors enter the tester line, all training is done in the tester line dedicated for training at the Oppama Plant. Training under this new structure has commenced.
- Due to inconsistencies between the *kanken* sheet and the standard operation manual that were identified at multiple plants including Oppama, and due to the risk that this could result in *kanken* tasks not being performed, alignment between the *kanken* sheet and the standard operation manual was confirmed when production for the domestic market resumed on Nov. 7.

As the current *kanken* line is complicated in terms of security and efficiency, an optimal *kanken* line will be designed promptly and introduced at each plant.

3.2. Revision of final inspector registration criteria and training standards

The following action has been or will be taken:

• The registration and training standard now clearly states that final inspectors in training cannot conduct *kanken* tasks.



• By benchmarking other domestic carmakers, the content and duration of the training program will be improved to facilitate rigorous operation by the end of September 2018.

The investigation revealed that training and exams were not carried out in a proper manner. There were instances discovered of correct answers being provided during the exam. The following urgent countermeasures have been taken:

- Five hours of re-education was carried out for all the final inspectors of all the plants. In addition, supplementary lessons were carried out until all final inspectors attained a score of 80% on the exam.
- Headquarters managers were sent to each plant to oversee the exams and prevent any misconduct.
- Those who passed the exam were assigned back to the *kanken*, on the condition that they undergo another official training program of 72 hours by the end of September 2018.
- The content of the registration, training process and examination has been revised to enhance trainee understanding. Ensuring the integrity of the exam is to be incorporated into the standard by the end of FY2017.

3.3. Improved final inspector staffing management

A staffing system will be introduced that takes into consideration the particular requirements of final inspectors.

As of Nov. 8, there are 536 employees who are qualified as final inspectors. Based on the production volume at the time of resuming production for the domestic market, the required number of final inspectors is 380 (343 final inspectors, 37 sampling inspectors).

- Develop and manage a staffing map of final inspectors by plant
- Identify the required number of final inspectors linked to production volume per hour (To be implemented by the end of 2017.)
- Develop and follow up on the training plan for final inspectors and reflect it into the annual plant budget (To be implemented by the end of 2017.)
- Train an additional 107 final inspectors within this fiscal year. A total net increase of 85 employees will be targeted considering turnover, and adapted to rising production volume (To be implemented by the end of FY2017.)
- Hire fixed-term employees that are qualified final inspectors as permanent employees. (Out of the 536 qualified final inspectors, 57 are fixed-term employees. Due to the risk of turnover, the company will make an effort to hire them as permanent employees.) (To be implemented by the end of 2017.)
- To ensure that the *kanken* is correctly carried out, the speed of the production line has been lowered to enable final inspectors to fully develop their proficiency while staffing is expanded.



3.4. Improved kanken operation and management

- Prior to the resumption of production for the domestic market, all the *kanken* processes at all the plants were realigned with what had been notified to MLIT.
- An operational process will be developed and introduced to keep the *kanken* under the control of the management of the plants and headquarters. The aim is to ensure that the entire lifecycle of the process is managed. (To be implemented by the end of FY2017.)
- A plant manager will be assigned as the "life cycle manager" of the *kanken* at each plant (plant manager), and the manager will be responsible for designing the final inspection process. Final inspectors will also be involved in designing the process. (To be implemented by the end of FY2017.)
- Real-world verification trials will be required to gain approval of the process. The quality assurance team will be obliged to confirm the process content to be submitted. (To be implemented by the end of FY2017.)
- The standards for the internal approval process and notification are under development (for example, under which process the quality assurance team will be obliged to conduct internal audits prior to notification). (To be implemented by the end of FY2017.)
- The internal approval process to change the *kanken* will also be included in the life cycle management process. (To be implemented by the end of FY2017.)
- A standard for monitoring whether the *kanken* is aligned with that notified to MLIT is under development. (To be implemented by the end of FY2017.) For the time being, self-monitoring is being conducted twice per shift. In addition, a weekly audit by the headquarters' quality assurance team and a weekly audit by an external firm will be conducted.

3.5. Measures to correct understanding of the kanken

- Carry out reeducation on compliance and standards regarding the *kanken* for all employees responsible for quality assurance, including final inspectors. Continue supplementary education until all achieve a passing score. (To be implemented by the end of FY2017.)
- Familiarize all the employees working at the plants with the importance of the *kanken*. (To be implemented by the end of FY2017.)
- Carry out re-education on compliance and standards regarding the *kanken* for all the relevant managers and corporate officers across the company. (To be implemented by the end of FY2017.)
- A subject concerning the appropriate attitude for audits will be incorporated into the above program to ensure employees respond properly to MLIT audits. (To be implemented by the end of FY2017.) Furthermore, representatives from Nissan headquarters' Legal Department and Compliance Department will be



present during MLIT audits to ensure correct understanding of the program content and that it is being promoted. (To be implemented promptly.)

3.6. Monozukuri from the users' viewpoint

In the case of the *kanken*, Nissan's pride in its products resulted in overconfidence. Those involved in the process believed there were no issues with inspectors and workers carrying out *kanken* tasks as long as they had acquired enough proficiency.

Taking this as an opportunity, the following action will be taken to ensure all Nissan employees in Japan conduct the *kanken* from the users' standpoint:

- A CS (customer satisfaction) mindset training program will be planned for final inspectors in which they will hear customer opinions from the call center, reflect on it and rediscover their job from the customers' viewpoint. The program will aim to develop heightened awareness that noncompliance will lead to more serious outcomes. (To be implemented by the end of FY2017.)
- To further develop awareness of the users' standpoint at the *kanken* line, each plant will enhance its organization to commit to a fully compliant *kanken* that provides customer peace of mind and to remove overconfidence. (See 3.9. Enhanced organization)

3.7. Improved audits

- Enhanced effectiveness of audit and monitoring system: Create a "three lines of defense" audit system — plant quality assurance department, Total Customer Satisfaction function, and Internal Audit — so that more consistent risk management and control is in place and reflected into the audit and monitoring plans. (To be implemented by the end of FY2017.)
- Enhanced effectiveness of audit procedure: Clarify the audit evaluation procedure, introduce a specific procedure to evaluate the validity of evidence, implement a policy and process for audit evidence retention, and conduct unannounced audits. (To be implemented by the end of FY2017.)
- Continuous implementation of audits based on an audit plan: Implement riskbased audits and conduct analysis of root causes concerning the audit findings. (To be implemented by the end of FY2017.)

3.8. Close the gap between the shop floor and management

- Continue to carry out regular meetings between the chief competitive officer (CCO), who is responsible for *monozukuri*, and *kakarichos* in charge of the *kanken*.
- Increase the frequency of meetings between the CCO and executive vice president in charge of manufacturing and representatives of the *kakaricho* association and foremen's association.
- Involve kakaricho in the following processes (to be implemented by the end of 2018):



- Production volume planning by plant and volume increase plan
- > Staffing at the plant including personnel changes
- Development and revision of the standard operational procedures, including registration and training of final inspectors
- At headquarters, assign a new corporate vice president to oversee all plants in Japan to increase headquarter visibility of the management and operation of the plants (To be implemented by the end of FY2017.)
- The following items will be assessed regularly under the leadership of the new corporate vice president (To be implemented by the end of June 2018.)
 - > Progress report on implementation of the countermeasures
 - > Report of plant objectives and rate of achievement
 - > Development of action plans to reach objectives and validation of feasibility
 - Validation of headcount budget and forecast feasibility, and assessment of results

To enable the chief executive officer to grasp the reality of *kanken* compliance and directly oversee the performance, *kanken* compliance status will be regularly reported at the internal control committee chaired by the CEO starting before the end of 2017.

3.9. Enhanced organization

To facilitate better communication between headquarters and plant management, and better collaboration between the plant quality assurance management and *kakarichos*, *kakarichos* and inspectors, the following organizational actions will be taken:

- As outlined in 3.8, assign a new corporate vice president to oversee all plants in Japan (To be implemented by the end of FY2017.)
- As outlined in 3.6, increase the number of quality assurance managers at each plant by one, to a total of two. The additional one will be selected from among the current *kakarichos* in order to develop a stronger bond between management and the shop floor. (Implement by January 2018.)
- Increase the number of *kakaricho* in charge of the *kanken* by one, to a total of two. The additional one will ensure that a compliant *kanken* is conducted at all times. (Implement by January 2018.)

3.10. Countermeasure progress reporting and further embedding

In consideration of its importance, the CCO will report this matter on a regular basis at the Executive Committee chaired by the CEO.

- Countermeasure progress is to be reported by the CCO to the CEO and Executive Committee every month, beginning December 2017.
- Progress related to internal control in particular is to be regularly reported at the internal control committee chaired by the CEO starting by the end of 2017.



• Following submission of the report, progress will be reported to MLIT every three months.

The following actions will be taken to embed the countermeasures and keep them in the mind of employees:

- Add questions about compliance and "walls between management and the shop floor" into the annual employee survey to measure the effectiveness and penetration of the countermeasures. (To be included starting from the next employee survey.)
- Position compliance as one of the foundations of the new midterm plan, and establish a key performance indicator that will be monitored by the CEO at the Executive Committee. (For prompt discussion.)

About Nissan Motor Co., Ltd.

Nissan is a global full-line vehicle manufacturer that sells more than 60 models under the Nissan, Infiniti and Datsun brands. In fiscal year 2016, the company sold 5.63 million vehicles globally, generating revenue of 11.72 trillion yen. Nissan engineers, manufactures and markets the world's best-selling all-electric vehicle in history, the Nissan LEAF. Nissan's global headquarters in Yokohama, Japan, manages operations in six regions: Asia & Oceania; Africa, Middle East & India; China; Europe; Latin America; and North America. Nissan has a global workforce of 247,500 and has been partnered with French manufacturer Renault since 1999. In 2016, Nissan acquired a 34% stake in Mitsubishi Motors. Renault-Nissan-Mitsubishi is today the world's largest automotive partnership, with combined annual sales of almost 10 million vehicles.

For more information about our products, services and commitment to sustainable mobility, visit <u>nissan-global.com</u>. You can also follow us on <u>Facebook</u>, <u>Instagram</u>, <u>Twitter</u> and <u>LinkedIn</u> and see all our latest videos on <u>YouTube</u>.

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