SKILL EVALUATION SYSTEM
PROMOTION PROGRAM (SESPP)

# REPORT ON THE TRAINING SESSION IN VIETNAM

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| Experts | Mr. INAGAWA Fumio<br>Technical Adviser of Secretariat of SESPP<br>Mr. YUNOKI Masanori |
| Period | Monday, February 21st – Friday, February 25th, 2022 |
| Venue<br>【Remote Lecture】 | Ho Chi Minh City, Vietnam<br>Saigon High-Tech Park Training Center (SHTP-TC)<br>Hachioji City, Tokyo, Japan<br>Studio Always |
| Training Course | Skill Assessor Training (SAT) |
| Trade & Grade | Mechanical Inspection Grade 2 |

**March, 2022**

# Outline of Results

## 1. Number of Participants: 12

## 2. Schedule

| Date & Time | Content |
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| February 21st (Mon) 8:30 - 16:30 | 【Skill Assessor Training】<br>(1) Overview of SESPP<br>(2) Introduction about the Japanese skill test system<br>(3) Lecture on the Pre-course Textbook<br>(4) Preparation and check of equipment & instruments required for Work 1- 4<br>(5) Explain how to perform Work 1- 4 by screening videos<br>(6) Explain how to measure the base tangent length of Work 2 using PowerPoint data<br>(7) Practice Work 1 and Work 2 (Fill in the measurement results on the answer sheet)<br>(8) Practice Work 3 and Work 4 (Fill in the measurement results on the answer sheet) |
| February 22nd (Tue) 8:30 - 16:30 | 【Skill Assessor Training】<br>(1) Prepare necessary equipment (number vests from No. 1 - No. 13, 6 x armbands, 6 x clipboards, 4 x stopwatches)<br>(2) Prepare necessary documents (practical exam question sheets, precautions before the exam, answer sheets, work attitude scoring sheets)<br>(3) Role Play (at first, experienced participants play the role of assessors; others are examinees; and then participants change roles)<br>(4) Practice from Work 1 - Work 4 on Role Play |
| February 23rd (Wed) 8:30 - 16:30 | 【Skill Assessor Training】<br>(1) Measure correct answer value and prepare score deduction table<br>① Explain how to find the correct answer value by double check<br>②Explain measurement instruments and equipment to be used<br>③ Explain how to perform the measuring work and how to create a point deduction table, and start measuring work<br>(2) Practice scoring based on the created point deduction table<br>① Explain how to deduct points<br>② Emphasize the importance of scoring based on the instructions of the practical test for measuring the instrumental error in Work 4.<br>③ Fill in the scoring results in the practical test score sheet to complete the sheet |
| February 24th (Thu) 8:30 - 16:30 | 【Skill Assessor Training】<br>(1) Explain the concept of mechanical inspection job<br>(2) Explain several examples of questions in practical written test<br>(3) Implement practical written test (test time: 105 minutes) |

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| | (4) Practice scoring using the answer sheets answered by the participants<br>① Explain how to allocate points for each question and scoring method<br>② Score based on the correct answer sheet<br>③ Fill in the scoring results in the practical test score sheet to complete the sheet |
| February 25th<br>(Fri)<br>8:30 - 16:30 | 【Skill Assessor Training】<br>(1) Explain how to solve the test questions<br>① Explain how to solve Question 1 based on the answer example<br>② Explain how to solve Question 2 based on the answer example<br>③ Explain how to solve Question 3 based on the answer example<br>(2) Explain how to solve written test questions based on geometry<br>(3) Wrap-up |

## 3. Review (by Mr. Inagawa)

(1) Despite the fact that it was the first Mechanical inspection Grade 2 SAT to be held at Saigon High - Tech Park Training Center (SHTP-TC), we could conduct the training course smoothly because SHTP-HC had prepared all the necessary equipment in accordance with the specified specifications. Besides, in this training course, there were four certified Grade 3 assessors and two assessors who were in charge of SET before participating. As a teaching method, we laid emphasis on the leader-ship of these participants and had them demonstrate how to perform each work test to the new participants. I think that this helped the new participants to understand the work that they experienced for the first time and to perform the work smoothly.

(2) When a person gets used to the measurement work, there is a tendency that this person will pay less attention to confirming 0 point, instrument error of the measuring instrument and temperature changes in the room. That's why I had to remind the participants get back to the basics when they perform the measurement work. Mechanical inspection is a job that requires measurement skill to read up to μm units. For example, a 100 mm long component expands 1.1 μm when the temperature rises by 1°C. Therefore, I encouraged the participants to get into the habit of paying close attention to the instrumental error of the measuring instrument used and the changes in the room temperature. I instructed them to check the 0 point of the measuring instrument before starting the measurement, to record the room temperature (at before, during and after the work), and the instrumental error of the micrometer used.

(3) Since the measurement using a height gauge and the measurement of base tangent length using a tooth thickness micrometer are not included in Mechanical inspection Grade 3 and they are required for the first time in Grade 2, all of the participants ran out of time and could not finish the these tasks. In the online course, it was difficult to see in detail whether the participants were measuring properly or not. Therefore, I have an impression that it is necessary to actually confirm the measuring method of the participants in person before we conduct SET.

(4) About practical written test

The questions of the practical written test (full mark 50 points) can be solved by using Pythagorean theorem and the formula of the triangular function, that's why the proficiency in geometry is required. I was impressed by the high level in the participants' marks, 4 of them scored 40 points or more and 3 others scored 30 points or more. As for the question of mathematical statistics, I could confirm that most of them understood the technical terms and formulas and used the right formulas to obtain the numerical values.

On the other hand, I could see that their level in measurement work was low. In Work 1, the examinee is required to measure a total of 21 spots in 11 minutes, in which: measurement with a micrometer: 10 spots, measurement with a caliper: 5 spots, measurement with a height gauge: 5 spots, measurement with a cylinder gauge: 1 spot. Regarding the measurement of the base tangent length in Work 2, the examinee is required to measure 10 spots in 5 minutes. The measurement of screw plug's effective diameter in Work 3 is required to perform in 3 minutes. The measurement of the micrometer's instrumental error in Work 4 is required to perform in 6 minutes. However, looking at the results, 2 participants scored 14 to 17 points out of 50 points, 2 participants scored 8 to 10 points, and others scored 0 points. Not to mention the speed of measurement, their measurement showed low accuracy.

In particular, the accuracy of the measurement using the height gauge and the accuracy of the depth measurement using the caliper were very low and far from the correct answer value. In addition, regarding the base tangent length measurement, after measuring $10^{th}$ spot, the answers required calculation skill, so many participants could not finish the task due to time constraint. As the preparation for the next training course, I told the participants to be aware of the measurement accuracy and to practice measuring faster so that they could get 20 points or more.

## Review（by Mr. Yunoki）

The course was implemented in Ho Chi Minh City remotely connected with 11 trainees. 4 of the participants were Level 3 certified assessors, therefore, the role-play exercise between the assessors and the examinees went smoothly with these 4 experienced assessors lead.

Not all of the examinees reached the passing score for the practical exam (Level 2), but all passed the planning exam as expected. The skill-level required for Level 2 is quite high, so it is important for the examinees and assessors to understand what Level 2 skill level is like and for assessors to do evaluattion accordingly.

In addition, as for the on-line equipment, I thought that at least one screen projecting a panoramic view for the entire job and other to project the operation work at hand are required.

2 to 3 lines, the equipment capable of transmitting the data from different angle according to the requirement and its oprators are required.

## 4. Questionnaire results

◆ Assessors: 12 (Respondents: 12)

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| Satisfaction Grade: | Very satisfied = 7 | Satisfied = 5 |
| Usefulness Grade: | Very useful = 9 | Useful = 3 |
| Needs of continuation: | Should continue = 6 | Should continue = 6 |

[Improvements and proposals]

· I want to expand this program among Japanese companies in Vietnam

· I want many measuring instruments so that the participants can practice measurement before actually take the test

· I would appreciate if you could support us so that we can hold evaluation seminars for other occupations
· I would appreciate if training institute or the organizer could sponsor me to study and take the skill test Grade 2

[Opinions, comments and preferred trades for the future]
· Metallurgy (2)
· CAD (2)
· Mechatronics
· Welding
· Mechanical Inspection (2)
· Mold
· CNC
· Sequence control

◆ Manager: 01 (Respondent: 01)
Needs of continuation: Should continue = 1

[Improvements and proposals]
We would appreciate if the experts could come to Vietnam in persons and conduct the training course on Skill Assessors Certification (SAC)

[Opinions, comments and preferred trades for the future]
Depending on the needs of the local industry, I am much looking forward to implementing training courses on other occupations, such as Mechanical Inspection, CAD drawing and Sequence control