

Quality Control

Achievement of Globally Uniform High Quality

In light of our global production system encompassing more than 30 countries, we are continuously striving to ensure uniformity in the Group's quality control efforts.



Paul Healy
Company Quality Improvement
Manager, Quality Assurance Division
Sumitomo Electric Wiring Systems
(Europe) Ltd. (SEWS-E) (U.K.)

Always Delivering the Highest Quality to Customers around the World

The key to promoting the "globally common quality" is to conduct an annual review of quality improvement policies across the entire SWS Group. While the SEWS-E is also working daily on quality improvements based on the SWS WAY, we follow the SWS Quality Policies for tasks such as formulating strategies and implementing additional measures. In fact, the key measures of the quality improvement indicated by the SWS Quality Policies in fiscal 2016, such as the 3 Point Control, were so effective that our claims index improved over the previous year. Improving the SEWS-E Quality platform is at the forefront of meeting customer expectations and remains a key focus for SEWS-E. We recognize this is a priority that merits our ongoing attention and are committed to achieving the SWS Group's objectives.

Quality Policies

Fiscal 2016: Promote the "Establishment of a structure for Zero Defects" and achieve "Zero Complaints" under Vision 2017!

- 1 Pursuing top quality in the world for customer satisfaction
- 2 Developing designs, processes and mechanisms that preclude defects
- 3 Strengthening onsite capabilities for pre-emptive management and recognition of quality-related problems

"Assurance of Each Process" Activity

The SWS Group has been placing high priority on actions for improving quality to achieve zero quality defects. The "Assurance of Each Process" activity lies at the foundation of this effort. The design division creates designs that eliminate any element that could cause a defect in quality before the product is made. The manufacturing technology development division establishes processes that preclude defects as well as processes for quickly identifying and eliminating defects before a product reaches the next stage. Moreover, activities undertaken by the manufacturing division stringently adhere to procedures in place for ensuring that defects do not occur in regard to any change point.

•3 Point Control

To prevent defects, we use 3 Point Control to promote a thorough management of three items at all our manufacturing sites: changes, abnormalities, and compliance with work standards. Moreover, we strive to manage changes in advance by identifying those associated with major events such as the production of new products or a sudden increase in production, people, equipment or materials. We define and manage abnormalities such as those that lead to product defects, including abnormalities in equipment, material quality and blackouts. To manage the compliance status of work standards, we select key work procedures and monitor one employee per process on a daily basis. Management is conducted with a higher level of sophistication by visualizing 3 Point Control and sharing issues with all employees at our manufacturing sites.

> Priority Actions Related to Quality Improvement Vision 2017: Roadmap •Target date for achieving goal •Clarification of measures Quality management and greater improvement at the manufacturing site to preclude defects and Developing designs, processes and products that eliminate defects Promote activities at business divisions Human resource development eliminate them before they reach the next stage Design and production Improvement of tasks ·Clarify conditions for ·Pursue zero defects defect-free products · Launch and resolve Eliminate manufacturing problems difficult tasks 3 Management DRRFM*2 QC circle Management Techniques for Effectively Undertaking Activities Creating a "Pika Pika" workplace Oreating "Pika Pika" skills Creating "Pika Pika" manufacturing lines Developing "Pika Pika" human resources

^{*1} SQC: Statistical Quality Control

^{*2} DRBFM: Design Review Based on Failure Modes

Pursuit of Customer Satisfaction

In fiscal 2016, despite falling short of achieving our objective of receiving zero claims, the frequency of claims received improved compared to the previous fiscal year. The SWS Group will continue striving for zero claims.

» Earning the Respect of Our Customers

We have consistently sought to provide high-quality products over the years that earn customer trust. This has resulted in the high regard of our customers around the world as well as 47 awards for our products in ten countries in fiscal 2016. We remain committed to delivering products that consistently merit the trust of our customers.

Onsite Practical Training for Quality Improvement Conducted at **Overseas Manufacturing Sites**

Most of the production of our Group occurs overseas including 97% of the total wire harnesses, which are our core products. To promote the SWS Quality Policies or "establishment of a structure for zero defects" and to achieve "zero complaints" under Vision 2017, we are committed to implementing practical onsite training for quality improvement at overseas manufacturing sites. Specifically we provide quality improvement training to the leaders of the local manufacturing and quality assurance divisions to eliminate any recurring defects within the processes. These sessions are conducted under our leadership and use locally produced products for analysis of defect causes.

After completing the training program, each trainee initiates voluntary improvement activities at his/her manufacturing site as a trainer and we follow up on these activities. This allows trainees to feel a sense of accomplishment in achieving goals and locally developed measures to be used for quality improvement at their sites. Currently there are 25 people being trained at our sites in Morocco, Romania and Egypt, leading to the establishment of the foundations for quality improvement and the spread of quality improvement activities at each site.

In fiscal 2014, we started providing training programs in Europe, mainly for people in Morocco and Romania, and then expanded to Egypt in fiscal 2016. These programs did not start out as perfect, and there was plenty of room for improvement in terms of the training methods, content in the materials and follow-up procedures being used. Through a number of improvements, our current training programs are evolving into a something more sophisticated and suitable for global deployment.

We will continue to review our initiative and systemize these programs to expand their reach globally to our sites in the Americas, China and ASEAN countries in addition to those in Europe and Africa.

» Pika Pika Campaign for Achieving Globally Uniform Best Quality

To achieve Globally Uniform Best Quality with the highest product appeal, we promote our Pika Pika Campaign, which is fairly self-explanatory for our employees. The campaign is composed of four elements: PK evaluation, G-STARS, human resource development, and HAI-Q activities for quality improvement, leveraged by the other three elements, to achieve zero defects. Our PK evaluation conducted annually since fiscal 2002, involves those in charge of quality at headquarters visiting all of our 111 overseas plants and conducting the evaluation for three days. It takes about 950 person-days to evaluate all plants and about 30 people in charge, who are dispatched to each site individually or as a team of up to three people. The evaluation is intended to accelerate improvements at each plant by clarifying weak points. In fiscal 2015, the evaluation, initially based on an overall score system, was revised and improved so that it would assess the degree of achievement in safety (S), quality (Q) and productivity (P). In addition, we held the Skill Olympic Games annually to increase the motivation of our employees toward further developing their skills, and outstanding operators from around the world gathered to compete in their respective areas of expertise.



Wire Harness Division contestants at the Skill Olympic Games

> Awards Received in Fiscal 2016



Sumitomo Electric Wiring Systems (Europe) Ltd. (SEWS-E) (U.K.) won the Quality Excellence Award of Honda Motor.



Aiming for Zero Defects by Utilizing the Knowledge and Skills Gained from the Training

Mahmoud El Moghazi

Inspection Leader, Quality Assurance Department, Port Said Plant,

SE Wiring Systems Egypt S.A.E. (SEWS-Eg) (Egypt)

My job as a quality inspection leader is to manage and support cut and crimping inspections, and I do inspection work every day. I was always interested in quality improvement work, so I'm very grateful for this opportunity you have given me to receive the training.

In the training, I learned various theoretical methods to resolve quality issues such as different approaches to address quality issues, the QC7 tool and 5 Why analysis. I will share what I've learned from the training with my colleagues and practice the QC circle activity to achieve zero defects. I would like to thank all of the people at Sumitomo Wiring Systems who supported me throughout the training and gave me the opportunity to expand my knowledge.

Basic Concept of the Pika Pika Campaign*1



- *1 Based on the idea that creating a "Pika Pika" (shiny) mind, actions, skills, equipment and worksites leads to "Pika Pika" products
- *2 HAI-Q: Harness Innovation Quality
 *3 G-STARS: Global Skill Training and Recognition System

> Skill Olympic Games



Electric Wire Division (SWS-Suzuka)

At the 10th Skill Olympic Games, we became the first group to have won the championship for three consecutive years. We will continue to seek improvement in our daily operations and our skills while raising our efforts to win the championship again next year.

Flectric Wire Division



Wire Harness Division





Electronics Division

