



QSHE* Manual

***QSHE: Quality, Safety, Health, Environment, Security**

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Kuehne + Nagel has implemented an integrated QSHE Management System; QSHE stands for Quality, Safety, Health, Environment and Security. The basic principles are summarized in this QSHE Management Manual.

1. Introduction & Overview

1.1 Kuehne + Nagel – The Global Logistics Network

The Kuehne + Nagel group is one of the leading logistics service providers worldwide with offices in all major regions, countries and locations around the world. The most up-to-date information is always given among others in the [Kuehne + Nagel Internet site](#), in the latest Annual Report, and in the current Organization Charts.

1.2 Quality, Safety, Health, Environment, Security (QSHE) – Overview / Field of Application

Within the frame of its integrated QSHE Management system Kuehne + Nagel fulfills among others the requirements of the latest versions of the following international and other standards: ISO 9001 for Quality Management, ISO 14001 for Environmental Management and OHSAS 18001 for Occupational Health & Safety. Additional standards include among others: SQAS (Safety and Quality Assessment System – initiated by the Chemical Industry), TAPA (Security standard issued by the Transported Asset Protection Association), C-TPAT (Security standard issued by the U.S. Customs – Customs-Trade Partnership Against Terrorism), Cargo 2000 (Quality airfreight standard issued by an IATA Interest Group consisting of airlines, handling agents and freight forwarders), and others. In addition, Kuehne + Nagel is committed to fulfill the requirements of the IFS (International Food standard) and many more standards related to Food Safety, Pharma & Healthcare and others; these are summarized at Kuehne + Nagel under the term GXP, which expresses the frame for the various standards like GMP (Good Manufacturing Practice), GSP (Good Storage Practice), GDP (Good Distribution Practice) and others. A Kuehne + Nagel Cross Reference Matrix is available indicating which sections of the various standards are covered in which Kuehne + Nagel's QSHE Manual section and / or in which QSHE Procedure.

Field of Application: The QSHE Management system as described in the QSHE Manual and the QSHE Procedures applies to all Kuehne + Nagel Business Units including Sea + Air Logistics, Contract Logistics and Rail + Road Logistics as well as to all Functional Units such as Human Resources according to the latest company's Organization Charts. No exclusions of the applicability of the international standards above are given. Each of the above standards according to the QSHE Management system is implemented and externally certified according to a multi-sited / matrix certification at selected Kuehne + Nagel locations, which



are listed in the annexes to the corresponding certificates such as ISO 9001 and ISO 14001. Additional / new Kuehne + Nagel locations can apply for external certification according to some / all of the above standards only, if the corresponding QSHE Management system is fully implemented and only after Kuehne + Nagel internal audits have been made to check the compliance.

1.3 Documentation – Overview

This QSHE Manual represents the highest level of QSHE documentation for internal and external use; the next lower level is formed by the QSHE Procedures for internal use only – both of them have worldwide applicability.

Besides the above other documentation exists, such as working instructions, guidelines, circulars, etc. It is Kuehne + Nagel's goal, that all documentation is kept electronically as far as possible. This applies completely to the QSHE documentation, which is always published electronically in the newest version. If QSHE pages are printed, the basic principle is: Uncontrolled if printed. That means that printed versions are for information only; for the latest version every KN employee is obliged to refer to Kuehne + Nagel's intranet called KNet. Strict authorizations and access limitations are defined for editors and owners of pages. Thus it is ensured that only controlled information is placed in the KNet, and that the information is at the right place to be found easily again.

2. Terms & Abbreviations

2.1 Terms & Abbreviations Kuehne + Nagel General

Within the Kuehne & Nagel group a lot of special terms & abbreviations are used, which include general terms of a logistics provider as well as specialized terms and abbreviations used within Kuehne + Nagel only. For internal use only, Kuehne + Nagel may be abbreviated as KN, and so-called KN Codes are used internally as well. It consists of the three-letter location code according to the United Nations Codes for Trade and Transport Locations followed by the abbreviation for the function. Thus Ham MQ means for example the Hamburg based Manager for QSHE. Other abbreviations are explained in Kuehne + Nagel's intranet site.

2.2 Special Terms & Abbreviations QSHE-related

In the following some special terms & abbreviations are listed (excerpt), which are applicable to the areas of Quality, Safety, Health, Environment and Security (QSHE):



| | |
|-------------------------|---|
| Audit | Review of a system or process by an auditor – also referred to as QSHE Audit |
| | |
| BV Certification | Bureau Veritas Certification – external certification company for most of Kuehne + Nagel’s external certificates and attestations |
| | |
| Cargo 2000 | Quality airfreight standard issued by an IATA Interest Group consisting of airlines, handling agents and freight forwarders |
| C-TPAT | Customs-Trade Partnership Against Terrorism issued by the U.S. Customs |
| | |
| DQ | Data Quality |
| | |
| EM | Environmental Manager, Environmental Management |
| | |
| GXP | A term used within Kuehne + Nagel, which expresses the frame for the various standards like GMP (Good Manufacturing Practice), GSP (Good Storage Practice), GDP (Good Distribution Practice) and others |
| GXP Food | Under this term / certificate selected food standards are summarized |
| GXP Pharma & Healthcare | Under this term / certificate selected pharma & healthcare standards are summarized |
| | |
| HACCP | Hazard Analysis and Critical Control Point – risk management system used related to GXP Food (see above) |
| | |
| IFS | International Food Standard – related to GXP Food (see above) |
| ISO | International Organization for Standardization |
| ISO 14001 | International Environmental Standard issued by the ISO |
| ISO 9001 | International Quality Standard issued by the ISO |
| | |
| KNC | KN Circular (KN internal instructions / news) |
| KN Codes | Abbreviation of functions to be used for internal communication, e.g. Ham MQ (see above) |
| KNG | KN Guidelines |
| | |



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|----------------|--|
| OHSAS 18001 | Occupational Health & Safety Assessment System, a British Standard |
| | |
| QM | QSHE Manager, QSHE Management |
| QMM | QSHE Management Manual (short: QSHE Manual) |
| QMP | QSHE Management Procedures (short: QSHE Procedures) |
| QSHE | Quality, Safety, Health, Environment, Security |
| QSHE Statement | Kuehne + Nagel's global Mission Statement related to QSHE – signed by the CEO |
| | |
| SOP | Standard Operational Procedures |
| | |
| TAPA | Transported Asset Protection Association, a security standard |
| TIP | Tool to Improve Processes – Kuehne + Nagel's name to be used related to discrepancies as well as suggestions for improvement |
| | |
| WI | Working Instructions |

Further QSHE-related terms and abbreviations can be found in Kuehne + Nagel's Intranet / other documentation.

3. Customer Focus

3.1 Customer Satisfaction

Absolute Customer Satisfaction is one of the primary goals of Kuehne + Nagel as documented in the QSHE Statement, which has been signed by Kuehne + Nagel's CEO (Chief Executive Officer). This statement contains the basic principles related to the areas of Quality, Safety, Health, Environment and Security (QSHE), and it is binding for all employees. Kuehne + Nagel continuously monitors, whether the customer requirements are met. This is done in several ways:

- a) Customer surveys are done and their results are evaluated at different intervals / regions / locations.
- b) The Sales personnel gets the information about the customer satisfaction during their visits / contacts with the customers; if customer feedback is received by operational personnel, then these have to forward this to the Sales personnel as



soon as possible. Sales is responsible to evaluate the information, to communicate the results back to the operations and / or to the appropriate management to initiate improvements if required in cooperation with the forwarding personnel. Sales personnel is obliged to enforce that feedback from customers is obtained related to their perception of Kuehne + Nagel's quality.

c) For the top customers Key Account Managers are assigned who have as one of their tasks to continuously be in contact with their customers to obtain information whether KN has met the customers' requirements and to initiate improvements in case that customer satisfaction is not completely reached. For major customers global Key Accounts Organisation Charts are in place to clarify the responsibilities for those customers related to overall responsibility within Kuehne + Nagel including the responsibility for certain business fields for that customer.

d) In addition Top Management, Regional / National / Branch Office Managers, Heads of departments, operations personnel and others receive the information about customer satisfaction and communicate that information within Kuehne + Nagel to initiate continuous improvements.

3.2 Customer Requirements

The individual in charge who accepts a customer order is obliged to check before, that this order can be fulfilled. Furthermore he/she has to ensure that all relevant customer requirements are known. For more details please refer to QSHE Manual Section 7 'Processes' as well as to QSHE Procedures P31 'Customer Process' and P71 'Standard KN Process'.

The check of customer requirements can be done by several means as listed above: a) global check by customer surveys, checks by b) Sales Personnel, c) Key Account Managers or checks by other individuals as listed above under d). In every case the person accepting an order has to initiate the appropriate process and make all necessary preparations, that these requirements are met during the execution of the order with the aim of enhancing customer satisfaction.

KN has a powerful tool called KNLogin for Tracking & Tracing of nearly all consignments of Kuehne + Nagel by means of the Internet. A lot of standard and customized Data Quality Reports are permanently produced to monitor KN's data quality. This is done for the criteria: Completeness, Actuality, Logical Correctness and Total Quality based on various status codes. Supporting data and statistics can be produced at different levels, fields, intervals and for individual customers. This tool is used to permanently monitor and improve the data quality of customer shipments with the goal to meet customer requirements completely and thus further increasing customer satisfaction.



3.3 Customer Communication

As stated in the sections above, communication to customers and from customers is enforced by the four means a) to d) as per section 3.1 – see above. In addition communication can take place as follows – among others:

- Customers ask for global offers, which may include several business fields such as seafreight and airfreight. These requests / inquiries are routed to the appropriate tender center within the KN organization. Then the individual tender center is responsible to coordinate the communication internally with the offices / business fields involved and to channel the communication with the customer, until he has an offer, where his requirements are met.

- Customers use one of the buttons on top of the Kuehne + Nagel Internet site: [‘Contact us’](#) , [‘Get Your Quote’](#) and / or [‘Customer Service’](#). Answers / Feedback will be given to them as requested.

- Customers make suggestions about improvements to Kuehne + Nagel as a result of customer audits, during meetings, visits, etc. These suggestions are subject to review by the responsible individual within Kuehne + Nagel and are implemented and communicated if the evaluation process is positive.

- Customers may complain about service discrepancies. Independent of the reason and independent whether they are right or wrong, in every case the Kuehne + Nagel employee receiving the complaint/claim ensures that it is properly forwarded to the KN owner of that complaint - if it is not him/her. The complaint owner has to make sure that the primary reason is identified including the fact who caused it (Kuehne + Nagel internal or external), that appropriate corrective / preventive action is taken and that the customer is informed about the result. The goal is to use such complaints to initiate improvements and to increase customer satisfaction.

- Additional external communication can take place, e.g. in environmental and / or other matters. Communication can be extended to authorities, fire stations and / or other external interested parties. Kuehne + Nagel’s Corporate Communication Department coordinates major external communication to investors, to the media and others.

Communication can take place via various channels, e.g. a) verbal by phone, personally, voice mail or similar, b) written by letter, fax, e-mail, internet or similar or c) by other means such as electronic data transfer, etc. Individual arrangements about communication can be agreed upon with customers upon demand.



3.4 Customer Process

All processes within Kuehne + Nagel are continuously reviewed whether they are adequate and suitable to meet customer requirements and whether they can be further improved or optimized. All processes at Kuehne + Nagel are customer-oriented / user-friendly, since they are performed as part of Kuehne + Nagel's pledge to satisfy the customers. This applies to operational processes as well as administrative processes and includes all Business and Functional Units. For special customers Standard Operational Procedures (SOPs) or QSHE Working Instructions can be established by the responsible Kuehne + Nagel individual, if necessary. Every Kuehne + Nagel employee is obliged to handle customer property carefully - the goods / consignments themselves as well as customer owned pallets etc. In case of damage or loss the customer is informed accordingly by the responsible individual within the Kuehne + Nagel organization. The Kuehne + Nagel standard processes are further explained in section 7 'Processes' of this manual.

Each customer can view the status of their consignments via the Kuehne + Nagel Internet software called [KNLogin](#). This is Kuehne + Nagel's global supply chain visibility tool for all worldwide airfreight, seafreight and roadfreight shipments as well as those related to European Overland consignments.

For global customers special Lead Logistics Solutions are offered. These services are offered to effectively manage global customers' supply chains - independent whether these are handled within Kuehne + Nagel or by other logistics service providers. The Lead Logistics Solutions include the design, the implementation, the execution management as well as the delivery process in order to manage complex supply chains effectively.

3.5 Internal Customer Principle

Huge efforts of Kuehne + Nagel are directed to the satisfaction of its external customers. In order to reach this goal, every Kuehne + Nagel employee is obliged to give his/her contribution, whether he/she works in a certain business field or functional field, whether he/she belongs to the management or to the staff. Furthermore every employee has internal customers, who have requirements, expectations and deadlines as well throughout the whole supply chain. One example: A container is shipped from Rotterdam to New York. It is very obvious that the Seafreight import clerk in New York is dependent on the quality of work done by the seafreight export clerk located in Rotterdam. If one of them fails, then the customer will not be satisfied for a variety of reasons. The basic principle at Kuehne + Nagel is therefore to satisfy both and to meet the requirements of both, the internal as well as the external customer. A chain is only as strong as its weakest link: This basic principle is part of Kuehne + Nagel's corporate [QSHE Statement](#).



4. Information, Documents & Records

4.1 Information

Every Kuehne + Nagel employee obtains the information needed from a variety of media and sources, externally as well as within Kuehne + Nagel. One part of the information can be retrieved and filed by documents and records as described below in section 4.2. The other part is verbal information / external information, which is retrieved via Internet/Intranet, local servers, telephone calls, E-Mails, letters, external data bases, electronic data interchange EDI, external newsletter etc. Every head of department is responsible that his / her employees have the possibility to retrieve the information required and has to organize that. If no access to the internet / intranet is available, the head of department has to implement other methods, such as E-Mail news, uncontrolled hardcopies, circulars, verbal information or other. In case that uncontrolled hardcopies are used, the corresponding updates have to be ensured.

4.2 Documents & Records

This section covers Documents & Records, which are related to Kuehne + Nagel's QSHE system; a first overview is given in section 1.3 Documentation Overview above. The related QSHE Document Matrix contains all such documents in alphabetical sequence together with the following information: Document Owner, Medium for storage (Paper, KNet or other), Retention period, Validity within Kuehne + Nagel, Remarks including the notifications 'Sample' or 'External document', and additionally the date of last update. Nearly all documents and records are contained in the Kuehne + Nagel Intranet - called KNet.

Kuehne + Nagel is using a product called TYPO3 as a Content Management Framework providing a backend for management of content and a frontend engine for website display related to the KNet. Every page placed in the KNet has an editor / owner, and the rights for these individuals are administered by the KNet Support Team. The individual being responsible for a content is displayed in the upper right corner with his / her contact details. The owner is responsible for approval of his / her pages. The Kuehne + Nagel Internet (Extranet) site is published and administered completely by the Kuehne + Nagel Portal Support team to ensure consistency and compliance with Kuehne + Nagel's corporate identity standards.

In case that documents are printed, these are uncontrolled - for the latest version of a document the user always has to refer to the KNet. There are other documents, which are not in the KNet. In this case the individual who creates such documents has to ensure, that the identification of the owner and the date is contained in these documents. This is usually done in the footer of the document. Old versions of documents can still be retrieved from an archive. Usually a document in the KNet



has a limited validity; at the end of that period the owner is informed to review it and - if required - to update the pages. Records are kept as required as listed in the QSHE Document Matrix; in this matrix a QSHE Working Instruction Sample is also contained for view and download.

When creating new documents, forms etc. the Kuehne + Nagel Corporate Design Manual has to be followed. Only original authorized KN Logos may be used, which are available for download as part of that manual. For presentations a standard Kuehne + Nagel Presentation template is available, which is binding.

Some external QSHE-related documents are included in the QSHE Document Matrix. In case of regional / national / local / special additional external documents such as local laws and regulations in all QSHE-related areas to be followed, the nominated Manager in charge is responsible to ensure, that the latest updates are available and that employees are informed about this.

For QSHE Working Instructions as well as for forwarding files certain numbering systems are in place; for details please refer to the QSHE Procedure P41 'Control of Documents & Records', where further details of document control are given.

5. General Management

5.1 Management Responsibility / QSHE Statement

Kuehne + Nagel Management at all levels is committed to the QSHE Management system including the corresponding continuous improvement process. Kuehne + Nagel's Chief Executive Officer has issued the corporate QSHE Statement, which is binding for all employees. More information is given in the previous sections of this manual. The latest version of the Catalogue of Competences is published internally in the format of a so-called 'KN Circular' and sets the frame, what competences are given to which management level. For example: The competence related to changes in services offered and / or changes in Business Units / Business Fields is restricted to the responsible Board Member in the Kuehne + Nagel International Management Board. In addition, Competence Catalogues are available at regional level with validity for certain regions; these have to be communicated to the International Management Board in Schindellegi, Switzerland.

In general the Management is at the top of the QSHE Movement, motivates the employees to participate and gives managerial support at all levels. More details about the organisation and structure of Kuehne + Nagel is given in Section 1 of this manual. Corporate QSHE Targets are published on an annual basis and published in the Kuehne + Nagel Internet; additional QSHE-related targets are set at other suitable levels and supervised by the responsible managers. The annual budget process takes place mostly in the third quarter of the preceding year, and during



that process the Business Field (BF) Managers define additional qualitative and quantitative targets as part of their BF budget instructions. Responsibilities are defined and documented in organization charts and additional documents such as job descriptions as required and the Catalogue of Competences.

5.2 QSHE-related functions

The basic QSHE Management principle is: Every Kuehne + Nagel employee is responsible for the quality of his/her work, but Management as well as the following functions have a key influence on the quality – among others: QSHE Managers (QMs), Business Field QSHE Managers (BFQMs), CIEL Superusers (CIEL is Kuehne + Nagel's current operational software) and Data Quality Managers. The global QSHE Management structure is contained in the Corporate QSHE Organisation Chart; Directories of QSHE Managers are available for all regions. Mr. [Uwe Brandt](#) with the Kuehne + Nagel internal code Ham MQ has been appointed to be the QSHE representative of the worldwide Kuehne + Nagel group; he acts as Vice President QSHE (Quality, Safety, Health, Environment, Security).

In general, corporate QSHE Management serves as the umbrella for corporate standards related to service quality, data quality, process quality and other QSHE-related areas: The umbrella covers all business and functional fields and all regions, countries and locations in a matrix organisation. The QSHE-related Tasks and Responsibilities are defined and determined at corporate level as well as on regional, country and local level. Continuous alignment and efficient coordination are ensured by means of an ongoing communication and information exchange with the Business Fields and all parties concerned within Kuehne + Nagel.

5.3 Communication

An effective communication is considered to be one of the essential prerequisites within Kuehne + Nagel to deliver high quality services to our customers. For details about the communication with customers please refer to the QSHE Manual Section 3.3. 'Customer Communication' above. The Kuehne + Nagel internal communication takes place with a variety of media as basically described in the QSHE Manual Section 4.1 'Information' above. Further details are contained in the QSHE Procedure P51 'Communication Flow', which is for Kuehne + Nagel internal use only. Communication about the effectiveness of the QSHE system takes place as follow-up action of the Management Reviews as well as a result of other meetings, audits, etc.

5.4 Management Review

Management Reviews are held at all levels of Kuehne + Nagel at least once a year to ensure the effectiveness of the QSHE management system and initiate changes



/ improvements as appropriate. The Kuehne + Nagel internal QSHE Procedure P52 'Management Review' contains details related to the review input and output as well as for topics to be addressed in such reviews.

6. Human & Other Resources

6.1 Human Resources

The effective management of Human Resources is one of Kuehne + Nagel's key success factors, since service quality can be directly linked to the motivation and the qualification of personnel. This is also reflected in Kuehne + Nagel's QSHE Statement. More details related to the definition of qualifications, training of new staff, job/refresher training as well as the performance review and evaluation of training are contained in the Kuehne + Nagel internal QSHE Procedure P61 'Training'. In connection with the selection process of new employees it is ensured that Kuehne + Nagel's personnel is competent related to the requirements on the basis of appropriate education, training, skills and experience. Training activities are performed at the corporate, regional and national / local level; Kuehne + Nagel internal training programs are available. More details about training measures including training objectives, location, etc. per region and major countries are contained in the respective Kuehne + Nagel Intranet pages.

6.2 Other Resources

The Kuehne + Nagel Top Management has given a high priority to the integrated QSHE management system and has provided the appropriate resources for its implementation, maintenance and continuous improvement. The goal is to enhance customer satisfaction at all levels as a joint effort of all Kuehne + Nagel employees including all business units, supported by the functional units. The appropriate infrastructure is maintained including work space / environment, associated utilities, functioning hardware and software as well as an advanced level of communication media. The appointed QSHE Managers at all levels are provided with enough time and resources to perform the QSHE-related portion of their activities.

7. Processes

7.1 Processes at Kuehne + Nagel

All Kuehne + Nagel operations in the Business Units and Business Fields follow a prescribed, IT-based forwarding process, which is described in more detail in the QSHE Procedure P71 'Standard KN Process'. The basic process steps are: 1) Enquiry and Quote, 2) Order confirmation, 3) Booking, 4) Check of Credit Limit, 5)



Execution, 6) Monitoring, 7) Invoicing and 8) Filing. These are Standard Process Steps in accordance with the 'Supply Chains Operations Reference' (SCOR) model, which is also used by the KN business field Lead Logistics Solutions. The standard processes are specified in more detail within major business and functional fields in corresponding Guidelines, which are available in Kuehne + Nagel's Intranet.

7.2 Customer-related Processes / Design and Development

For Kuehne + Nagel the customer orientation is one of the key success factors; an overview is given in this manual Section 3 'Customer Focus' above. An introduction to the related processes is given under 3.4 'Customer Process' in the same section. As one of the leading Logistics Service Providers Kuehne + Nagel offers tailor made logistics solutions. The development of such solutions as well as the development of new Kuehne + Nagel business fields / services is described in more detail in the Kuehne + Nagel internal QSHE Procedure P31 'Customer Process'. Kuehne + Nagel's key product is the delivery of logistics services; thus whenever ISO standards 9001 and others mention the term 'Product', this is translated then for Kuehne + Nagel and for the QSHE Management system to be the Kuehne + Nagel services according to the field of applicability – see section 1.2 'Quality, Safety, Health, Environment, Security (QSHE) – Overview / Field of Application' above.

Some of these services in the airfreight for example are called 'KN Express', which is a premium, performance-guaranteed express airfreight product, or 'KN Extreme', a product available for special cargo. For clarification: The consignments which are forwarded on behalf of our customers are not Kuehne + Nagel's products in the above sense, but are considered as customer property within the QSHE Management system – for more details see section 7.4 'Service Provision' below.

As stated above in section 5.1 'Management Responsibility / QSHE Statement', the responsibility for the development of new services (products) and / or their changes is restricted to the management board according to the Catalogue of Competences. The stages during the development of new services at Kuehne + Nagel can thus be compared with the design of a new product such as a truck:

a) Design and Development Planning: Planning is done based on the customer requirements / contract and is updated as appropriate; feasibility is checked; appropriate communication is ensured throughout this phase on an ongoing basis.

b) Design and Development Inputs: These inputs are obtained / checked in the phase of enquiry according to the customers' demands and requirements; the applicable statutory and regulatory requirements are considered and similar earlier designs are used as much as possible to use the prior experience, if applicable. It is ensured that all inputs are reviewed for adequacy and completeness.



c) Design and Development Output: In case of new / revised services the output is documented and it is checked, that the results meet the requirements. In case of consignments, the output is finally confirmed by acceptance of orders including special arrangements, if applicable.

d) Design and Development Review: The review is done continuously; in case of discrepancies appropriate action is taken and changes are initiated if required. The performance is reviewed on an ongoing basis.

e) Design and Development Verification and Validation: Among others this is done by self-checks, audits, meetings, pilot phases and / or sales follow-up; during this phase it is checked, that the results have met the input requirements including the customer requirements.

f) Control of Design and Development Changes: In case of major changes these are communicated and agreed with the customer beforehand and minuted, if useful. In case of discrepancies, a root cause analysis is done and the appropriate corrective or preventive action is taken according to QSHE Manual Section 8 'Measurement & Improvement'. This is part of the continuous improvement process.

7.3 Purchasing

As a non-asset based logistics service provider Kuehne + Nagel does normally not operate own trucks, vessels and planes, but instead these services are purchased from suppliers such as carriers and subcontractors. As part of Kuehne + Nagel's QSHE management system the selection and evaluation of such suppliers is done according to the internal QSHE Procedure P72 'Purchasing'. Certain criteria are determined for selection of carriers and subcontractors, and suppliers are classified into three categories: A - preferred cooperation, B - cooperation with limitations and C - no cooperation. Since airfreight and seafreight carriers are operating worldwide, these carriers are assessed on an international level. The up-to-date list of evaluated airlines and shipping companies is published in Kuehne + Nagel's Intranet called KNet. Road and other transport-related subcontractors are selected and evaluated locally. Additional new suppliers can be tested with a maximum of three trial orders before they are approved as official suppliers. Service Discrepancies are handled according to the QSHE Manual Section 8 'Measurement & Improvement'.

7.4 Service Provision

As outlined above and in the Kuehne + Nagel internal QSHE Procedure P71 'Standard KN Process', P31 'Customer Process' and in other procedures, Kuehne + Nagel plans and carries out all services under controlled conditions at all levels



and stages during the whole supply chain. Working instructions are available if required according to QSHE Manual Section 4 'Information, Documents & Records'. Processes for service provision are validated, if required; identification and traceability is given by the software KNLogin as described in the QSHE Manual Section 3.4 'Customer Process' above; the available status codes are used to steer the forwarding processes and initiate appropriate action in case of discrepancies from plans. Customer property is handled with care as described in QSHE Procedure P31 'Customer Process' - see above. It is handled according the customer requirements, preserved and protected as far as possible to prevent its loss or damage.

7.5 Monitoring and Measuring Devices

Powerful tracking & tracing facilities are used to monitor services as described above.

There are cases, in which contractual individual agreements with customers exist with obliging conditions for physical goods such as a certain temperature or usage of scales or other measuring devices. In these special cases Kuehne + Nagel ensures that this is done according to the requirements as agreed with the customer. This includes calibration of measuring devices and other measures as necessary to fulfill the special contractual agreements. In case that scales etc. are used for normal purposes in the forwarding process, where a rough figure is enough without 100 percent precision, these do not fall under this section.

8. Measurement & Improvement

8.1 Monitoring & Measurement

As stated above, Kuehne + Nagel's primary goal is the absolute customer satisfaction. Therefore it is closely monitored, whether the customer requirements have been met as described in QSHE Manual Sections 3.1 'Customer Satisfaction' and 3.2 'Customer Requirements' above. Monitoring and, where applicable, measurement of the processes is done throughout the whole Kuehne + Nagel group; corrective and preventive action are taken, if the planned results are not achieved. Monitoring is done by - but is not limited to - one of the following: QSHE Audits, Data Quality Audits, self checks of employees, control by superiors/management, spot checks, financial audits, evaluation of claim reports, evaluation of quarterly financial reports, special visits by the responsible managers for that operation, evaluation of Data Quality statistics (see below), review of Annual QSHE reports (see below) and others. Systems are in place if the service does not comply with the requirements, and the customer is informed in case of major discrepancies such as claims or damages, if applicable and agreed.



8.2 Internal Audits

Internal QSHE audits are conducted within the KN group according to audit plans; checklists may be used during the audits. By the means of audits it is checked whether the QSHE system is effectively implemented and maintained and whether conformance is given among others to a) Kuehne + Nagel specific procedures, instructions as well as customer requirements and b) to the requirements of the international ISO and other standards as listed above and c) to laws and regulations in place. The results of audits are summarized in audit reports. It is ensured that no Kuehne + Nagel auditor does audit his/her own work in order to prevent conflict situations. For further details including the qualification of the auditor and the handling of audit discrepancies please refer to the Kuehne + Nagel internal QSHE Procedure P81 'Audits'. In addition Data Quality Audits and other Audits are performed by major Business Fields - often based on statistics of status codes etc.; for the corporate Headquarters the audits may be done also by meetings and other means. Financial audits done by the corporate Internal Audit department or by internal auditors in the regions complete the audit activities.

8.3 Annual QSHE Reporting

As part of Kuehne + Nagel's integrated QSHE management system Annual QSHE Reports (AQRs) are to be prepared at local/national, regional and corporate levels, which usually are used as one of the inputs for the management reviews. More details related to responsibilities, deadlines, distribution and others are contained in the Kuehne + Nagel internal QSHE Procedure P82 'Annual QSHE Reporting'. In addition to the AQR, reporting throughout the year and unstructured other reporting is done, whenever the demand is given; this can be by phone, e-mails, fax, office memos, in meetings or by other means.

8.4 Handling of Discrepancies / TIP

Any discrepancies are treated as potential for improvement by Kuehne + Nagel to prevent, that the same deviation does happen again. Discrepancies can result from a variety of reasons within Kuehne + Nagel as well as externally; they can result in complaints, claims or they may not affect the customer, but are still a reason for improvement. It is ensured that all important discrepancies are handled and followed up - regardless whether the reasons are Kuehne + Nagel internal or caused from outside. In case of deviations, the Kuehne + Nagel internal QSHE Procedure P83 'Handling of Discrepancies' is applicable within the Kuehne + Nagel group. A special 'Tool to Improve Processes' called TIP is available which can be used in the case of discrepancies, but which is not mandatory and is not the only way. Communication about and handling of a discrepancy can also happen by - but is not limited to - phone, e-mails, fax, office memos, in meetings or by other means - for more details please refer to QSHE Procedure P51 'Communication Flow'.



In every case the problem owner (the responsible individual within Kuehne + Nagel - usually the person who caused the discrepancy) has

- 1) to analyze the problem, if possible by means of a root cause analysis,
- 2) to ensure that corrective action is taken,
- 3) to follow-up until the case is settled / the action is completed,
- 4) to give information to the customer (if required) and to other individuals within the Kuehne + Nagel group including his/her superior (if required),
- 5) to initiate preventive action, if possible, so that the same discrepancy will not happen again.

Reviews of the effectiveness of the actions taken are done during audits and by other means. The above handling also applies to ensure that measures are taken and that those are effective in case of risks related to environment, safety & health, security and other areas.

8.5 Analysis of Data & Data Quality

One source of analysis of data can be the TIP form (see above) which is analyzed related to the main causes of the discrepancies. Another source is the information contained in the Annual QSHE report (see above) as well as the QSHE audit results (see above). Further sources can include the results of financial audits, the financial results in general, the results of special activities such as customer / employee surveys or special improvement projects. Another major source for analysis of Kuehne + Nagel's Data Quality is gained by the powerful software called KNLogin for Tracking & Tracing, which is one tool to meet the customer requirements as described in section 3.2 'Customer Requirements' above.

Powerful worldwide KNLogin Data Quality Standard Reports are generated on a monthly basis and upon demand. A whole set of clearly defined Status Codes (e.g. 'Arrived at destination port') is generated out of external sources, by manual inputs and as far as possible by means of the Kuehne + Nagel operational standard software. This serves as the basis for individual analysis and follow-up at local, national, regional and corporate level. The figures are also evaluated to generate trend information and to initiate the appropriate corrective action and training measures, if required / initiated by negative trends. Analysis of Data is also initiated within Kuehne + Nagel's Lead Logistics Solutions activities as outlined above in Section 3.4 'Customer Process'.

8.6 Continuous Improvement Process

Kuehne + Nagel is closely committed to the continuous improvement process. Every employee can contribute to improvements with his/her ideas and actively participate to implement good ideas in his/her area of responsibility. The improvement initiatives comply with the continuous improvement process cycles as



defined in the international ISO standards 9001 (Quality), 14001 (Environment) as well as defined in the specifications such as the Occupational Health and Safety Assessment Series - OHSAS 18001 and other standards. Special techniques and projects are in place in individual sites, if useful, such as compliance with SQAS, the Safety and Quality Assessment system initiated by the European Chemical Industry. Kuehne + Nagel is committed to reach excellence and Total Quality Management TQM. Every year Kuehne + Nagel wins several awards and prizes in delivery of its services, which are published in Kuehne + Nagel's Internet and Intranet site as well as in the Annual Report.

8.7 Corrective & Preventive Action

It is one of the essential parts of Kuehne + Nagel's continuous improvement process, that corrective and preventive action is taken in order to prevent reoccurrence of discrepancies. This includes that discrepancies are reviewed and that their causes are determined, if possible by the means of a root cause analysis. More details are contained in the Kuehne + Nagel internal QSHE Procedure P83 'Handling of Discrepancies / TIP'. Once the need for action is determined, the action is implemented and a follow-up / review is done on the results of the corrective and preventive action to reach its suitability. A follow-up on the effectiveness is conducted afterwards. For further details please refer to QSHE Procedure P84 'Corrective & Preventive Action'.

9. Legal & Risk Management

9.1 Legal and other Requirements

Within Kuehne + Nagel's Management the functions 'Risk Management' and 'Legal Affairs' are implemented, which include the following important activities - among others: 1) Involvement in major contracts related to the legal affairs, 2) Involvement with major lawsuits, legal proceedings, 3) Involvement in major cases with a penal liability of a KN company / employee / other, 4) Execution of voting rights at major board meetings of subsidiaries / affiliates, 5) Appointment of lawyers in major cases, 6) Involvement in the legal aspects of insurance matters including major claims and risk management matters, and 7) Identification of major risk areas and Execution of the corresponding risk management.

Special guidelines and catalogues of competence are in place to cover further details. Kuehne + Nagel is committed to comply with all relevant laws and regulations as documented in the QSHE Statement. Among others, this includes compliance with laws and regulations in the important areas of Quality, Safety, Health, Environment and Security. Further details are contained in the Kuehne + Nagel internal QSHE Procedure P91 'Identification of and Compliance with Legal Requirements'. The goal is to protect Kuehne + Nagel's employees as well as the



public as far as possible. A Legal Disclaimer is implemented within the Kuehne + Nagel internet site, which is binding for all users.

9.2 Risk Management

Kuehne + Nagel has an implemented powerful system in place to manage potential financial risks. This includes for example major insurance claims which are reported in a Quarterly Claim Report throughout the organization with information to the Legal / Risk Management Departments. In addition, financial audits are performed by the Corporate Services Department, where potential financial risks are identified and corrective / preventive measures are taken as a result. In addition to the financial risks, also IT-related risks are identified, as documented in several IT security guidelines related to firewalls, password protection and other issues. Special risk assessment are done if required.

A corporate evaluation of risks has shown that one of Kuehne + Nagel's highest risks in the areas of environment, safety and health as well as security is related to the handling of dangerous goods. Therefore a powerful organization of dangerous goods safety advisers / representatives has been implemented. These individuals have to follow special guidelines and receive a special training for that topic; accidents including major near misses are reported. Special risks related to the work environment are identified and minimized to protect Kuehne + Nagel's employees as far as possible. Since Kuehne + Nagel has no own production of goods in the classic sense and does usually not operate own trucks, planes, ships etc., the potential environmental impact related to air / water pollution, waste, contamination of land, noise and usage of raw materials and natural resources is comparatively limited. Nevertheless, risk analyses have to be done to identify risks related to environment, safety, health and security, if applicable, and these risks have then to be evaluated in more detail. Kuehne + Nagel's preparedness in the case of an emergency is described in the Kuehne + Nagel internal QSHE Procedure P92 'Emergency Preparedness & Response'. In order to minimize the environmental impact of the company, Kuehne + Nagel is striving to measure and minimize its Carbon Footprint with the goal to considerably contribute to more sustainability.

Effective Security Management is another important issue, which is of growing importance for Kuehne + Nagel's customers as well as for the public. It is mandatory, when considering the requirements of the high-tech industry and when forwarding any high-value goods and / or high consequence dangerous goods. For explanation: High consequence dangerous goods are those, which have the potential for misuse in terrorist incidents, and which might produce serious consequences such as mass casualties or mass destruction. Kuehne + Nagel complies with all these and other security requirements. More details are contained in QSHE Procedure P93 'Minimum Security Standards' and in various security-related guidelines and instructions.