

GENERAL SPECIFICATION

QUALITY CONTROL

GS.08

EPM C. VALLARINO	EPM E. ARRIGHI	EQA C VALLARINO	24.11.09	Sections 3 and 4	1
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GS.08**1****1. SCOPE**

The present document aims at defining the guidelines of quality control, in accordance with the PAUL WURTH ITALIA S.p.A. Quality Manual QSM-001 and at ruling the relationships between PAUL WURTH ITALIA S.p.A. and Supplier as to the surveillance activity on supplies.

2. QUALITY CONTROL

The quality is the whole of the characteristics of a material and the related processing activities, which are necessary and sufficient to make it such as to cope with the planned final use.

The required quality is defined by the engineer through proper parameters, which will be also assumed as reference to ascertain that the obtained quality is in compliance with the required one.

The tests to be made are described by proper specifications or reference standards. The acceptance criteria are given through the "Supply Purchase Technical Specification" or documents mentioned in it.

The final result of the testing is indicated in the collection of certificates referred to tests made on the components, and to the tests made on the assembled equipment as required.

3. CLASS OF SUPPLY

Both the activities required to design and build the material, being the scope of the supply, and the checks to ascertain the requested/actual quality compliance are a function of number of parameters, among which:

- impact degree on the plant reliability, in terms of safety and operation of materials being supplied
- time required for the site replacement of defective parts after the plant start-up
- type of the product, subject of the supply, whether of batch production or not and the Supplier's specific experience

On the basis of the above consideration PWIT assigns a "class of supply" (A or B or C) to each supply.

The class of supply defines the level of control that supplier shall apply to assure the required and the expected quality during the entire production process.

Table 1 shows the minimum activities and documentation to be performed/issued according to the class of supply assigned.

The class of supply for each supply is stated in the Technical Specification.

The classes "A" and "B" generally collect main complete equipment and/or those products that – due to either their construction features or their type and /or service conditions or to all these factors need to be taken under control for making sure the final inspection get satisfactory results.

At this moment will be carried out an overall examination to check the completeness and preservation conditions. For the classes "A" and "B" the issue of Quality Control Plans (see sect. 7) is foreseen. The class "C" collect those product that belonging to none of the previous classes, are manufactured

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according to standard procedures, well known to the manufacturer for long time and currently checked during production by proper methods.

Such products are defined as “shelf materials” and /or “under catalogue materials”.

For the class “C” the issue of Quality Control Plans is, generally, not foreseen, but the Supplier shall communicate in writing to PAUL WURTH ITALIA S.p.A. the tests normally performed during the production. PAUL WURTH ITALIA S.p.A. reserves itself the faculty to request, also for the class “C”, the issue of Quality Control Plans.

Following documents shall be, in any case, submitted to PAUL WURTH ITALIA S.p.A.:

- supplier’s internal certificates,
- test Report C1 and/or the Inspection Certificate C2, or at least the Certificate of Compliance “A” (see sect. 8).

TAB. 1: ACTIVITY/DOCUMENTS TO BE PERFORMED/ISSUE DEPENDING ON THE CLASS OF SUPPLY

		A	B	C
a)	General Activity Plan	X		
b)	Quality Control Plan	X	X	
c)	Authorized sub supplier list	X		
d)	Welding procedures qualification	X		
e)	Welding and NDT personnel qualification	X	X	
f)	Kick Off meeting	X		
g)	Shop facilities availability	X	X	
h)	Testing facilities availability	X	X	
i)	Program for sub-supplies	X		
j)	Program for visiting sub-Suppliers	X		
k)	List of sub-supply orders	X		
l)	Copy of sub-supply orders	X	X	
m)	Manufacturing and testing progress	X	X	
n)	Revision of the program for delivery	X	X	
o)	Testing technical documents	X		
p)	Calling for Official Inspectors	X	X	X
q)	Sampling and test witnessing	X	X	X
r)	Waived or not witnessed manufacturer shop test	X	X	
s)	Check of documentation completeness	X	X	X
t)	Drawing up of materials inspection report	X	X	X
u)	Drawing up of packing inspection report	X	X	X

Above mentioned points are explained in sect. 4

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GS.08**1****4. QUALITY CONTROL ACTIVITIES/DOCUMENTATION**

The supplier shall perform/issue the following activities/documentation according to the table 1 on the basis of the class of supply stated in the Technical Specification:

a) General Activity Plan

A plan that defines all the activities (design, facilities preparation, production test, packing, shipping, etc.) related to the supply stating for each one: responsibilities, schedule, resources, connection with the other activities and any other information useful to keep under control the overall quality and schedule.

b) Quality Control Plan

A plan stating all the test and inspection activities with standards, procedures, acceptance criteria, extension, etc. (see section 7).

c) Authorized sub supplier list

List of sub suppliers that the supplier intends to make use.

d) Welding procedures qualification

Check that welding procedure qualification shall be duly certificated and accepted by PAUL WURTH ITALIA S.p.A..

e) Welding and NDT personnel qualification

Check that the manufacturers entrusted have available the welders and welding operators certification selected for each job.

Check that all the non destructive test operators are duly certified to the level required by the job.

f) Kick off meeting

Before the start of the production the supplier shall call PWIT to a meeting with the aim to check that all the information have been well understood and all the criticalities have been ridden out.

g) Shop facilities availability

Check that Supplier and sub-Suppliers have, in due time, the necessary tools, machine and equipment to perform the supply.

h) Testing facilities availability

Check that all the necessary testing equipment and instruments are available in due time and properly calibrated and certified by official departments (where necessary).

i) Program for sub-supplies

Check that all the Sub-suppliers have got the required instructions to meet the necessary requirements according to this specification.

j) Program for visiting sub-suppliers

Schedule and performance of necessary visits to the Sub-suppliers, in order to check the work progress.

k) List of sub-Supply orders

Collection of the Sub-supplier list, in order to check them according to point o.

l) Copy of sub-supply orders

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Check all the sub-supply orders to make sure the quality requirement have been correctly transferred.

m) Manufacturing and testing progress

Periodical check of the work progress, in order to control the times of the supply.

n) Revision of the program for delivery

Revision (if necessary) of the supply delivery program, subject to agreement with the interested PAUL WURTH ITALIA S.p.A. departments.

o) Testing technical documents

Check that all the inspection and test instructions, procedures, standards are available to the supplier.

p) Calling of Official Inspectors

Check that the Supplier has provided, in due time, to summon the control official departments (where necessary).

q) Sampling and test witnessing

Take and identify the samples for the witnessed tests according to the Quality Control Plan (raw material and/or welding joints).

r) Waived or not witnessed shop tests

Check that the Supplier and Sub-suppliers continuously maintain the filing and listing of certificates also for the tests not witnessed by PAUL WURTH ITALIA S.p.A..

s) Check of documentation completeness

Check that all documents provided for the technical specification.

t) Drawing up of materials inspection report

Drawing up of material inspection report, proving that all inspection operations have been carried out successfully and certified, according to the pertaining classes.

u) Drawing up of packing inspection report

Drawing up or check of packing inspection report, proving that inspection has been carried out according to the reference specification prescriptions

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GS.08**1****5. RESPONSIBILITY OF THE SUPPLIER**

The Supplier is engaged to:

- have an organization system (verifiable by PAUL WURTH ITALIA S.p.A.) suitable for obtaining, checking and recording the quality level required for the concerned supply
- state the degree of authority and responsibility of the persons performing Quality Control functions and their organizational freedom of the production
- be responsible for the whole supply not depending on the sampling and witnessing of PAUL WURTH ITALIA S.p.A.
- perform all the necessary activities in accordance with the safety rules and common practice procedures in order to ensure safe working conditions for all the persons entrusted
- indicate, before the inspection, the entrusted person who shall be at PAUL WURTH ITALIA S.p.A. Inspector disposal for the whole test period
- call in writing in due time PAUL WURTH ITALIA S.p.A. for sampling and witnessing the tests, when this is provided; the calling procedure is shown in section 13
- accept the possible Customer presence, when accompanied by PAUL WURTH ITALIA S.p.A. Inspector
- check and possibly revise the construction and check activity chronograms periodically after PAUL WURTH ITALIA S.p.A. approval.
- make available to the Inspectors at the moment of testing, all the necessary documentation
- make available the testing materials, complete and in such conditions as to avoid that the testing and production activities are mutually disturbed
- make available the facilities for handling the materials during sampling and testing
- locate the testing place in such a position as to have available air, water, power, etc. as well as protection against atmospheric and pollution troubles, and ensure proper lighting conditions
- make sure all the test instruments are duly calibrated and certified as required
- maintain the sub-supply orders list available to PAUL WURTH ITALIA S.p.A.
- collect and give PAUL WURTH ITALIA S.p.A. when this is provided by the supply class, the copies of sub-supply orders
- periodically check the work progress with the construction activity chronogram in order to suddenly detect any trouble and allow preventing or reducing delay
- immediately call PAUL WURTH ITALIA S.p.A. intervention where troubles are foreseen
- collect and maintain separated (according to suitable procedures) the already checked materials and the conformities from the nonconformities
- carefully store the materials received through PAUL WURTH ITALIA S.p.A. for further working or assembling

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GS.08**1****6. CONTRACT OBLIGATIONS FOR INSPECTION AND TESTS DURING MANUFACTURE****6.1 Quality Control Plan (QCP)**

The Quality Control Plan (QCP) containing proposed inspection procedure together with details of the tests to be conducted by the Supplier, including the proposed time schedule to conduct all these tests, shall be submitted by the Supplier within the date indicated in the "Supply Purchase Technical Specification" or within half the contractual delivery period whichever is earlier, and shall be discussed and agreed upon within a further period of one (1) month time.

6.2 Inspection at Supplier's and/or at his Sub-Supplier's premises

The Supplier and/or his authorized representative shall have the right of inspecting and testing the Contract work or any part thereof, including all plant and equipment, its components, sub-assemblies and assemblies etc., at all times or at any time during the manufacture at Supplier's and/or at his Sub-Supplier's premises:

The Supplier, on demand of the Purchaser and/or his authorized representative and in his presence, shall carry out tests in accordance with the agreed inspection procedure, together with details of the tests to be conducted (Quality Control Plan or QCP) as given below in an appropriate manner free of charge to the Purchaser.

However, the Purchaser and/or his authorized representative shall bear Purchaser's travel, accommodation and related expenses. The Supplier shall also carry out other tests as may be required to be carried out by the Supplier under the Contract. All tests shall be carried out at no extra cost to the Purchaser.

Such tests shall be carried out generally to establish among others the following:

- quality of raw materials used for manufacture/ fabrication.
- quality of workmanship.
- dimensional accuracy of the manufactured parts.
- functional tests to establish the suitability of design and manufacture and to prove their reliability under working conditions.

Series produced catalogued engineering goods, such as valves, screws, limit switches etc, are excluded, but test certificates as available will be submitted to the Purchaser and/or his authorized representative by the Supplier.

6.3 Supplier to perform all tests

The Supplier shall be responsible to perform any and all tests and inspections according to the Contract and as requested by the Purchaser and/or his authorized representative, as part of Supplier's obligations under the Contract.

The Supplier shall carry out internal inspection of the work for which he is responsible to ensure proper performance and satisfy himself before giving the inspection call to the Purchaser and/or his authorized representative. To this end, he shall submit to the Purchaser and/or his authorized representative all pre-inspection forms, post inspection reports, test reports and such other documentation in such details as the Purchaser and/or his authorized representative may require.

Should the Supplier himself not be in a position to carry out the tests, he shall, on the Purchaser's and/or his authorized representative's demand, prepare specimens or samples and send as well as

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test them at his own cost at such testing stations as the Purchaser and/or his authorized representative may specify.

Should a part of the plant and equipment be manufactured not on the Supplier's own premises but on others' premises, the Supplier shall likewise obtain permission from the Sub-Supplier for the Purchaser and/or his authorized representative to inspect and test the work as if the said plant and equipment were being manufactured on the Supplier's premises.

Prior to testing, the Supplier shall submit safety procedures associated with on site testing for review and acceptance by the Purchaser.

6.4 Supplier to give notice

The Supplier shall give the Purchaser and/or his authorized representative a minimum of thirty (30) days notice of any equipment or material being ready for inspection and testing, specifying the period likely to be required for such inspection and testing,

The Purchaser and/or his authorized representative shall (unless the inspection or test is voluntarily waived), will give fifteen (15) days prior notice in writing to the Supplier and attend at the Supplier's or sub-Supplier's premises (as the case may be) and inspect and/or witness the testing, as soon as possible in a period, normally of not more than ten (10) days, from the Supplier's proposed date.

6.5 List of components, sub-assemblies and assemblies

The Supplier shall also furnish a list of various components, sub-assemblies and assemblies which the Supplier proposes to put up against the plant and equipment for inspection.

The Purchaser and/or his authorized representative shall have the right to make modifications in this list, to ensure that the minimum amount of assembly work is done at equipment location.

The Supplier, particularly before any assembly, shall notify the Purchaser and/or his authorized representative in an appropriate manner in order that inspection or test can be carried out as may be required to ascertain, without prejudice to the Supplier's liability, whether the materials and/or services are in conformity with the requirements of the Contract.

6.6 Assembly at shop

On the completion of shop fabrication, the Supplier shall assemble in his shop all fabricated and procured parts into sub-assemblies and complete assemblies subject to inspection and testing as aforesaid to ensure proper field erection, unless otherwise directed. All parts shall be match-marked by the Supplier to facilitate re-assembly at equipment location.

6.7 Documentary evidence and radiography tests

The Supplier, on being so requested, shall furnish documentary evidence to the Purchaser and/or his authorized representative to the effect that the materials used shall meet the requirements of the Contract and good engineering practice.

With respect to materials used for the fabrication of the plant and equipment, such as, structural steel, mild steel, cast iron, cast steel etc., the Supplier shall submit to the Purchaser and/or his authorized representative, at the time of inspection, the requisite test certificates along with specimens and test pieces on which tests were carried out by the original manufacturer.

With respect to large castings, forging, butt-welding etc, the Supplier shall carry out the necessary radiography, ultrasonic and dye-penetrant tests etc. For bought-out items, the manufacturer's test certificates shall be submitted by the Supplier. Wherever samples and specimens are submitted by the Supplier to the Purchaser/his authorized representative to show the quality of the material used, such samples shall become the property of the Purchaser.

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GS.08**1****6.8 Existence of hidden defects**

If the Purchaser and/or his authorized representative has reasons to suspect the existence of hidden defects, due to faulty materials and/or workmanship at manufacturer's works, he will have the right to order the removal and rebuilding of the doubtful parts of the Work or for carrying out additional tests as required.

6.9 Materials and services for conducting the tests

In all cases whether at the premises of the Supplier or of any sub-Supplier, the Supplier shall provide, free of charge to the Purchaser/his authorized representative, such labor, materials, electricity, fuel, water, stores, apparatus, instruments, specifications, approved general arrangement and shop drawings, catalogues, inspection and test reports and performance data, including efficiency and characteristic curves and other pertinent information as may be required, to carry out such inspection and/or tests of the Plant and Equipment in accordance with the Contract and shall give all facilities to the Purchaser/his authorized representative in this connection.

6.10 Rejection after inspection

The Purchaser and/or his authorized representative shall, on giving written notice to the Supplier setting out the grounds of objection which he may have witnessed or recorded in respect of the Work, be at liberty to reject, on the basis of the said objection, all or any Plant and Equipment and/or workmanship which do not fulfil the requirements of the Contract.

Inspection, examination or testing carried out by the Purchaser and/or his authorized representative and/or failure on the part of the Purchaser and/or his authorized representative to accept any work after inspection which later proves to be defective or to reject, shall not in any way relieve the Supplier from guarantees/warranties, commitments and obligations which he undertakes under the Contract. The Supplier shall be solely responsible for the accuracy, quality and completeness of his Work and supply.

7. QUALITY CONTROL PLAN

The Quality Control Plan, in case it is provided by the supply classes (sect. 3), comprehends the collection of all the standards and specifications which are necessary and sufficient to regulate the activity of Quality Control.

The Quality Control Plan contains the indication of control technical specifications and references for acceptance criteria.

The Quality Control Plan, according to the Purchase Technical Specification, is issued by *PAUL WURTH ITALIA S.p.A.* or Supplier.

The Quality Control Plan also contains the information about the working program, the inspection time and place, the witnessing for *PAUL WURTH ITALIA S.p.A.* and its Customer, if any, and the certification requirements.

The detail drawings and some particular documents may be given the Inspector later close to the time testing.

The Plan is consisting of two sections:

- the first describes the testing performance, acceptance, place of inspections, documents and drawings to be used during inspection, etc.
- the second describes the times for the different construction and testing phases of the products.

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The Quality Control Plan shall govern the quality control activity. Non deviations are allowed, during the supply, from the stated plan, with the only exception of those cases for which a justified request is to be submitted by the supplier to *PAUL WURTH ITALIA S.p.A.* who reserves itself to authorize them.

Basic form is given in Appendix A.

8. LEVEL OF TESTING CERTIFICATION

The degree of testing certification required for the tests and the reliability required to the product under test.

Through proper symbols the Quality Control Plan shows when required, the rate of certification.

Further instructions are given for selecting the control to be done:

- on the finished product only
- continuously during the production
- at some established steps of manufacturing.

Anyway the testing may be done:

- on sampling taken from the production from which PAUL WURTH ITALIA S.p.A. supply is drawn out
- expressly on the materials production from which PAUL WURTH ITALIA S.p.A. supply order

Following symbols are used:

A CERTIFICATE COMPLIANCE

Through this document the Manufacturer of the certified component states that it complies with the contractual agreements. No test result is given. No witnessing is required.

C1 TEST REPORT

Through this document the Manufacturer of the certified component states it complies with the contractual agreements. The results are given of test currently made in the workshop in order to check the production of components manufactures by the same procedure of the ones supplied but not specifically on the supplied products. No witnessing is required.

C2 INSPECTION CERTIFICATE

This document shows the written results of all the tests (chemical, mechanical, non destructive, dimensional, etc.) made on the products supplied to PAUL WURTH ITALIA S.p.A. and identified according to the instructions.

All the tests are generally performed by the Supplier who certifies the inspections carried out by signing the relevant documents.

In some special cases, the tests can be required to be made and certified by an independent Entity in his own testing laboratory.

In this case the certificates are signed by said Entity too.

V1 WITNESSED BY PAUL WURTH ITALIA S.p.A. INSPECTION CERTIFICATE

It is the certificate C2 when signed also by PAUL WURTH ITALIA S.p.A. – or its representative – that has witnessed the tests.

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GS.08**1****V2 INSPECTION CERTIFICATE WITNESSED BY THE CLIENT**

It is the document V1 when signed also by PAUL WURTH ITALI S.p.A. Client - or its representative – that has witnessed with PAUL WURTH ITALIA S.p.A. the tests.

U OFFICIAL INSPECTION CERTIFICATE

Where the tests are witnessed by an official Entity not depending on the presence of PAUL WURTH ITALIA S.p.A., the testing and its acceptance must comply with rules and regulations of the applied code. Thus the certification shall be written and signed according to such Code.

PAUL WURTH ITALIA S.p.A. recognizes and accepts this certification.

9. SAMPLING CRITERIA

Sampling consists of a portion of the supply which is subjected to the specified tests and represents the whole or part of the supply and determines according to the results obtained, the acceptance of the represented whole.

The sample is chosen freely by *PAUL WURTH ITALIA S.p.A.* Inspector, if he is present, within the supply.

The criterion for the choice of representative samples of the supply must be established before starting manufacture and for the classes “A” and “B” indicated in the Control Plan.

In the class “C” materials are tested, proceed as per sampling criteria normally used by the Manufacturer after previous communication to *PAUL WURTH ITALIA S.p.A.*.

Usually the sampling criteria are chosen within the same standardization system follows both for the product manufacture and tests.

10. MANUFACTURING PROGRESS REPORT

Supplier binds itself, under its complete responsibility, to hand over to PAUL WURTH ITALIA S.p.A., every 15 days (or with higher frequency, if explicitly requested), a manufacturing progress report (see form annexed, appendix A).

11. APPLICATION RANGE OF REFERENCE DOCUMENTS

The testing reference documents shall be used within the intended application range.

Possible deviations shall be agreed in advance, before performing the testing.

Even if official standards are translated into English language, in case of dispute the original issue prevails.

The issue used for the design and testing must be utilized for the whole manufacturing and testing period even if further amendments are issued, during this period.

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Testing, record of test performance and results are regulated by following documents shown in the next sections:

- list of test certificates
- test certificates
- inspection report for materials
- inspection report for packing

All these documents shall be filled using the English language.

The original Country language is allowed in addition.

Every PAUL WURTH ITALIA S.p.A. Supplier shall be responsible for obtaining this also by his Sub-suppliers.

For all the signatures, the name in block letters shall be repeated.

No copies are accepted that show reproduction defects or bad conservation.

No documents are accepted where heading or reference number or date or signature are missing. It is not mandatory that documents are typewritten. Also documents written by hand, in block letter, sharp and suitable for copying are accepted.

Possible corrections on the original documents are allowed provided the early writing may be read although cancelled and the correction is clear, signed and dated by the person who performs the correction.

No correction is allowed for the copies.

12.1 LIST OF CERTIFICATES

It is the list of all the test certificates issued to evidence the tests made by the Supplier and Sub-suppliers, witnessed or not by PAUL WURTH ITALIA S.p.A..

Also the statements of conformity shall be listed.

This list must be written in such a way as to ensure the correspondence of each certificate with the tests and controls performed.

This will allow checking that the testing activity is certified.

The list of certificates shall be given PAUL WURTH ITALI S.p.A. Inspector once the testing activity is concluded.

The list shall be signed by the Supplier; also PAUL WURTH ITALI S.p.A. Inspector shall sign it, for receipt, once he has got all the certificates listed in it.

The list may be omitted (at PAUL WURTH ITALIA S.p.A. Inspector discretion), when the certificates, due to their small quantity, can be listed with the necessary references, in the space destined to the notes of the "Materials Inspection Report" to which the certificates are attached.

Basic form is given in Appendix A.

12.2.MATERIAL TEST CERTIFICATES

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These certificates are prepared at the end of each test.

They must always be drawn up and signed if the test and recording are valid, regardless of the results obtained, and must be signed only by the representatives who have witnessed the tests.

Any remarks by Supplier or PAUL WURTH ITALIA's Inspectors regarding the execution of the test or the transcription of the results may be indicated on the form before this is signed by the parties.

In this case the acceptance is postponed until the reservations are put aside.

The test certificates, to identify the PAUL WURTH ITALIA's supply, must be completed with a few basic references.

For this purpose, the Supplier must affix on the copies of his certificates and those of sub-suppliers, the signature of his responsible appointee and an ink stamp, that can be photocopied, reporting his style name. In any case items of the certificate, which do not concern PAUL WURTH ITALIA's supply must be clearly cancelled.

Usually for the certificates headed and numbered by the supplier and his sub-suppliers, the forms in use are accepted; these however must be submitted to PAUL WURTH ITALIA for approval before starting the work.

Should the proposed forms be incomplete or not clear, PAUL WURTH ITALIA reserves the right to propose its own forms to the Suppliers unless they prefer to correct or change their own forms.

PAUL WURTH ITALIA examples of forms are given in Appendix A.

12.3 MATERIALS INSPECTION REPORT

The inspection report it must be issued after the final inspection. It does not certify for test witnessing, it is the statement that all the requirements of the Quality Control Plan for the classes "A" and "B" or the checks provided by the supplier for the class "C" about the materials involved, have been certified; for this reason, it does not require to be signed by all Inspectors - that possibly witnessed the tests, but must be signed by only one who checks that all the document as listed below are collected and valid.

The Inspection report is valid for the final contractual use, only when presented together with the certificates and the relevant listed test certificates and in accordance with relevant QCP.

The use of copies without annexes may be used for practical application within the limits of contractual procedure.

Checking of documents and signing the Materials Inspection Report must be done at the Supplier shop. Only for class "C", the drawing up of the report can be also made only on the basis of the certificates and acceptance test transmitted by the Supplier.

In this case, the document shall be signed only by *PAUL WURTH ITALI S.p.A.* Inspector, with the writing "Renounced" by mentioning the data of the writing renounce and it will have only a formal value for the conclusion of the case. However, the quality and quantity responsibility remains at Supplier's charge within the contractual prescriptions.

Moreover, for all the classes, should the available space be sufficient, the certificates related to tests may be listed in the "notes" and attached to the Material Inspection Report.

Basic form is given in Appendix A.

12.4 QUALITY INSPECTION REPORT

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For each intermediate and final inspection, a Quality Inspection Report shall be issued and duly signed by PAUL WURTH ITALIA S.p.A. Inspector, Supplier and final Customer, if present.

13. CALLING FOR TESTING

Following the testing program stated, the calling of inspectors for witnessing the tests will comply with the following procedure.

The supplier will inform in written *PAUL WURTH ITALIA S.p.A.*, according to the indications given in the supply order, indicating at least the following:

- reference job and order data
- actual date of the test and time required
- place where the test shall be performed
- material proposed for testing
- tests to be carried out on said materials
- contact person
- Supplier complete address

Said written information is to be considered as the testing material list.

PAUL WURTH ITALIA S.p.A. shall inform the Client according to the contractual procedure and shall reply to the Supplier for confirmation.

No direct information is allowed between the Supplier and the Client in an official way. In case *PAUL WURTH ITALIA S.p.A.* renounces to the test witnessing the Supplier is engaged to perform all the required tests and to collect the relevant certificates.

14. INSPECTOR ACTIVITY AT SHOP

The Client's Inspector will have access, for those parts of his supply concerned by the program, only when accompanied by PAUL WURTH ITALIA S.p.A. Inspector.

No official relationship is allowed to take place directly between the Supplier and the Client.

Where the materials are correctly presented for the inspection, the tests are correctly performed and the results are correctly recorded, the Client's and PAUL WURTH ITALIA S.p.A. Inspectors will sign the relevant certificate, independently of the results of the test. The Client's and PAUL WURTH ITALIA S.p.A. inspectors shall be made able to witness all the tests and inspections programmed in connection with the visit. The supplier is not engaged to carry out any test different than those scheduled. The testing activity is not allowed to involve engineering or commercial problems.

Therefore should some questions arise in the opinion of the Client's Inspector, they shall be pointed out in writing to PAUL WURTH ITALIA S.p.A. without affecting the test or inspection performance.

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Witnessing the tests and recording the results aims only to make sure that all these activities are made correctly.

Signing the certificates does not mean accepting the materials but confirming that are met the methods followed and results obtained.

The terms "Conform" or "Accepted" used in this specification shall mean that the Inspector recognized that the materials have got the prescribed tests and the expected results were obtained.

Such words do not imply assumption by the Inspectors of any of the responsibilities of the Manufacturer.

16. NON CONFORMITY MANAGEMENT

Non Conformity stands for "Non fulfilment of specified requirements" (ISO 9000).

Whenever the Supplier finds a Non Conformity, he shall provide to immediately inform the PAUL WURTH ITALIA S.p.A. Inspectors.

In this case the Supplier Quality Control System shall do what necessary to obtain correction or elimination of the non conformity where possible.

The Supplier shall inform PAUL WURTH ITALIA S.p.A. about any decision before undertaking any heavy repair to eliminate the non conformity.

PAUL WURTH ITALIA S.p.A. reserves the right to approve. Anyway after repair or correction the materials shall undergo the same tests that have shown the Non Conformity in the presence of PAUL WURTH ITALIA S.p.A. Inspectors.

The whole documentation related to the above activity shall be attached to the quality control certification.

The Supplier shall keep an updated recording of the found N.C. and relevant adopted solutions.

17. REJECTION OF MATERIALS

Should the Non Conformity be such to be hardly repaired or should the repair or correction not match with the required guarantees, material shall be rejected.

The materials rejected shall be restored apart and properly identified, until they leave the shop, to avoid their erroneous return among the current products.

The relevant certificate must be filed among the Quality Control documentation.

18. IDENTIFICATION SYMBOLS OF QUALITY CONTROL DOCUMENTS

Inside PAUL WURTH ITALIA S.p.A. "Quality Control" structure, the documents are identified by the suitable symbols, which are repeated on the relevant forms.

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- Quality Control Plan (**QCP**)
- Quality Test Certificate (**QTC**)
- Manufacturing Activities Time Chart (**CCX**)
- Non Conformity Report (**NCR**)
- Quality Inspection Report (**QIR**)

19. FILING AND DISTRIBUTION OF TESTING DOCUMENTS

The originals of all documents shall be filed always by the relevant issuer (with the style name headed on the form).

The other parties can have for their files up to the original standard or copy with original signatures as per Section 12. The number of the standard copies with original signatures to deliver to *PAUL WURTH ITALIA* is decided in the delivery order.

The official certification shall be filed according to the company dispositions on the subject.

Supplier and sub-supplier of *PAUL WURTH ITALIA* are not allowed, anyway, to give any documentation directly to the *PAUL WURTH ITALIA* Client.

APPENDIX A: BASIC FORMS

Basic forms for:

- Quality Control Plan (**QCP**)
- Quality Test Certificate (**QTC**)
- Manufacturing Activities Time Chart (**CCX**)
- Non Conformity Report (**NCR**)
- Quality Inspection Report (**QIR**)

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CONTROLLO QUALITÀ**QUALITY CONTROL****PAUL WURTH**
ITALIA S.p.A.**QCP - Piano di Controllo Qualità - Quality Control Plan****LEVEL OF TESTING CERTIFICATION**

The level of testing certification depends on the reliability required to the scope of supply.

Through proper indication, Quality Control Plan shows the percentage of controls.

Further indications are prescribed according to the control to be performed:

- for finished product only
- continuously during the production
- for defined key-points of manufacturing.

Anyway the test can be done:

- on samples taken from raw material used for PAUL WURTH ITALIA S.p.A. supply.
- directly on components from PAUL WURTH ITALIA S.p.A. supply.

Following symbols are used:

A COMPLIANCE CERTIFICATE

Through this document the manufacturer of the certified component states that it complies with the contractual agreements. No test result is given. No witnessing is required.

C1 TEST REPORT

Through this document the manufacturer of the certified component states that it complies with the contractual agreements. Test results are given for components produced with same procedures as PAUL WURTH ITALIA S.p.A. scope, but not necessarily on the material supplied to PAUL WURTH ITALIA S.p.A.. No witnessing is required.

C2 INSPECTION CERTIFICATE

This document reports results for all the tests (chemical, mechanical, non destructive, dimensional, etc.) made on the products supplied to PAUL WURTH ITALIA S.p.A and identified according to the instructions.

All the tests are generally performed by the Sub-supplier, who certifies, by signing relevant documents, that inspection has been carried out.

In some special cases, tests can be required to be made and certified by an independent body in its own testing laboratory.

In this case the certificates are signed by the body too.

V1 INSPECTION CERTIFICATE WITNESSED BY PAUL WURTH ITALIA S.p.A.

It's certificate C2 when signed also by PAUL WURTH ITALIA S.p.A. – or its representative – that witnessed the tests.

V2 INSPECTION CERTIFICATE WITNESSED BY CUSTOMER

It's document V1 when signed also by Customer - or its representative – that witnessed the tests with PAUL WURTH ITALIA S.p.A..

U OFFICIAL INSPECTION CERTIFICATE

When tests are witnessed by an official body, the testing and its acceptance must comply with rules and regulations of the applied code. The certification shall be written and signed according to such code.

Paul Wurth Italia recognizes and accepts this certification.

R This check involves review of certificates.**W Supplier must invite PAUL WURTH ITALIA S.p.A. to witness the test.****H Fabrication cannot proceed without approval of PAUL WURTH ITALIA S.p.A..**

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		CCX	CONTROLLO QUALITA <i>QUALITY CONTROL</i>				CRONOGRAMMA ATTIVITA DI COSTRUZIONE <i>MANUFACTURING ACTIVITY TIME CHART</i>						Pagina - Page 1/1	
Commissa <i>Job</i>	Data <i>Date</i>	Ordine <i>Order</i>	Descrizione dell'ordine <i>Order Description</i>				QCP di Riferimento <i>Reference QCP</i>			Impianto - Plant <i>Plant</i>				
Riferimento Posizione QCP <i>QCP Position Reference</i>														
Anno - Year		Gennaio <i>January</i>	Febbraio <i>February</i>	Marzo <i>March</i>	Aprile <i>April</i>	Maggio <i>May</i>	Giugno <i>June</i>	Luglio <i>July</i>	Agosto <i>August</i>	Settembre <i>September</i>	Ottobre <i>October</i>	Novembre <i>November</i>	Dicembre <i>Dec-03</i>	
Elaborati tecnici <i>Engineering documents</i>														
Disegni d'officina <i>Workshop drawings</i>														
Ordinazioni materiali <i>Materials procurement</i>														
Disponibilità materiali <i>Materials availability</i>														
Trasformazione materiali <i>Manufacturing</i>														
Disponibilità comp. std. <i>Std. components availability</i>														
Preassemblaggio <i>Preassembling</i>														
Controlli Intermedi														
Controllo finale <i>Final inspection</i>														
Imballaggio <i>Packing</i>														
Disponib. distinte spedizione <i>Packing list availability</i>														
Cliente / <i>Customer</i>		Contratto / <i>Contract</i>		Numero del CCX - <i>CCX Number</i>			Rev.	FIRME - <i>SIGNATURES</i> PAUL WURTH ITALIA S.p.A.			Fornitore / <i>Supplier</i>			
Note - Remarks		REV. 0 A B C												

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 PAUL WURTH I T A L I A S . p . A .		RAPPORTO DI NON CONFORMITA' / NON CONFORMITY REPORT		Pag. / Page
N.C. N° _____				
COMMESSA / JOB _____		ORDINE N° / ORDER N° _____		
CLIENTE / CLIENT _____		CLASSE FORN. / SUPPLY CLASS _____		
FORNITORE / SUPPLIER _____		LUOGO D'ISPEZ. / PLACE INSPECT. _____		
DESCRIZIONE DEL MATERIALE / MATERIAL DESCRIPTION				
_____ _____ _____				
DESCRIZIONE DELLA NON CONFORMITA' / DESCRIPTION OF THE NON-CONFORMITY				
_____ _____ _____				
Documenti di rifer. allegati <i>Reference documents attached</i> _____				
CORREZIONE PROPOSTA / CORRECTION PROPOSED				
_____ _____ _____				
Documenti di rifer. allegati <i>Reference documents attached</i> _____				
Data / Date	PAUL WURTH Italia SpA	Fornitore / Supplier	Distribuzione / Distribution	
VALUTAZIONE DELLA CORREZIONE PROPOSTA / EVALUATION OF PROPOSED CORRECTION				
<input type="checkbox"/> La N.C. viene accettata "allo stato"- <i>N.C. is accepted "as is"</i> <input type="checkbox"/> La correzione proposta è accettata - <i>Correction is accepted as proposed</i> <input type="checkbox"/> Scarto del materiale - <i>Rejection of material</i> <input type="checkbox"/> Altro - <i>Other</i>				
Data / Date	Coordinatore tecnico <i>Technical Coordinator</i>	Project Manager	Distribuzione <i>Distribution</i>	
RISULTATO FINALE DELLA CORREZIONE PROPOSTA / FINAL RESULT OF CORRECTION				
<input type="checkbox"/> Correzione effettuata soddisfacentemente - <i>Correction performed satisfactory</i> <input type="checkbox"/> Correzione effettuata non soddisfacentemente - <i>Correction performed unsatisfactory</i>				
Data / Date	PAUL WURTH ITALIA S.p.A.	CLIENTE / CLIENT	Fornitore / Supplier	

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Supplier Quality Control

Controllo Qualità del Fornitore



PAUL WURTH

ITALIA S.P.A.

Quality Inspection Report

Verbale di Collaudo

No.

00001

PWIT- FOR XYZ

Rev 0

Copies to:

QMS Manager

On (date) /

il (date)

[QIR_PWIT prot DOC/Rev0/23.05.2007]

1. General Information / Generalità

PW Client Name: <i>Nome del Cliente PW</i>		Supplier (Company) Name:	
PW Client Reference <i>Riferimento del Cliente PW</i>		Supplier Contact Person: <i>Persona da Contattare del Fornitore:</i>	
PW Quality Inspector: <i>Ispettore Qualità di PW</i>		Supplier Reference N°: <i>N° di Riferimento del Fornitore:</i>	
PW Project No. / N° di Progetto di PW (PO from PW client to PW): <i>(Ordine dal Cliente PW a PW):</i>		PW PO No. / N° dell'ordine di PW (PO from PW to supplier): <i>(Ordine dal PW al Fornitore)</i>	
PW Project Team: / Gruppo di lavoro PW	PM/PL:	CA:	TA: BU:
Equipment / Installation / Material to be checked: <i>Impianti / Installazione / Materiale da controllare:</i>			

2. General Inspection Information / Informazioni Generali di Controllo

Inspection Location: <i>Luogo del Controllo:</i>		Inspection Date: <i>Data del Controllo:</i>		Class of Supply: <i>Classe di Fornitura:</i>	
Inspection Type: <i>Tipo di Controllo:</i>		- Intermediate / partial <i>Intermedio / parziale</i>		- Planning Stage Control/ <i>Controllo dello stato della pianificazione</i>	
Ref. Documents: <i>Documenti di Riferimento</i>		- Specification / Specifica		- Control Documents <i>Documenti di Controllo</i>	
Pos <i>Posizio</i>		Qty <i>Quantità</i>		ID n° of REF Documents / <i>N° ID dei Documenti di Riferimento</i>	
Inspected Component(s): / <i>Componente (i) controllato (i)</i>					

3. Inspection Topics / Tipologie di Controllo

<input type="checkbox"/> Visual / Aspect <i>Visivo / Aspetto</i>	<input type="checkbox"/> Mechanic <i>Meccanico</i>	<input type="checkbox"/> Cast Item(s) <i>Prodotti in ghisa</i>	<input type="checkbox"/> Manual Operation <i>Funzionamento Manuale</i>
<input type="checkbox"/> Dimensional <i>Dimensionale</i>	<input type="checkbox"/> Electric <i>Elettrico</i>	<input type="checkbox"/> Steel structure <i>Strutture d'acciaio</i>	<input type="checkbox"/> Semi-automatic Operation <i>Funzionamento Semi-automatico</i>
<input type="checkbox"/> Identification (Labelling) <i>Identificazione (Etichettatura)</i>	<input type="checkbox"/> Material <i>Materiale</i>	<input type="checkbox"/> Assembly <i>Assemblaggio</i>	<input type="checkbox"/> Automatic Operation <i>Funzionamento Automatico</i>
<input type="checkbox"/> Material Certificates <i>Materiale Certificati</i>	<input type="checkbox"/> Hydraulic <i>Idraulico</i>	<input type="checkbox"/> N.D.T. <i>Prove Non Distruttive</i>	<input type="checkbox"/> Lubrication <i>Lubrificazione</i>
<input type="checkbox"/> Boiler Work <i>Calderaria</i>	<input type="checkbox"/> Pneumatic <i>Pneumatico</i>	<input type="checkbox"/> Pressure Test <i>Prove di Pressione</i>	<input type="checkbox"/> Painting <i>Pitturazione</i>
<input type="checkbox"/> Packing <i>Imballaggio</i>	<input type="checkbox"/> Progress (according to schedule) <i>Avanzamento (secondo il programma)</i>	<input type="checkbox"/> Other: <i>Altro:</i>	<input type="checkbox"/> Refractory <i>Refrattari</i>

4. Conclusion / Conclusione

<input type="checkbox"/> Accepted <i>Accettato</i>	The supplier is authorized: <i>Il fornitore è autorizzato:</i>	<input type="checkbox"/> to continue the work / <i>a proseguire il lavoro</i>	Delivery Date: <i>Data di consegna</i>
<input type="checkbox"/> Not Accepted <i>Non Accettato</i>	See List of "Faults and Corrections" on page 2. <i>Vedere la lista dei "Difetti e delle Correzioni" alla pagina 2</i>		
Supplier Representative <i>Referente del Fornitore</i>		Paul Wurth Quality Inspector <i>Ispettore Qualità di PW</i>	
Name: <i>Nome</i>	Name: <i>Nome</i>	Name: <i>Nome</i>	Name: <i>Nome</i>
Signature: <i>Firma</i>	Signature: <i>Firma</i>	Signature: <i>Firma</i>	Signature: <i>Firma</i>
Date: <i>Data</i>	Date: <i>Data</i>	Date: <i>Data</i>	Date: <i>Data</i>

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Quality Inspection Report

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5. Faults and Corrections / Difetti e Correzioni

Treated by
trattato dal

Id. No.	Description / Descrizione	Supp	PW
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

6. Agreement / Accordo

The supplier agrees

- to perform on his account, all corrections recorded on this report (except those marked "treated by PW");
- to complete such corrections before / / (date);
- to send a confirmation to the Paul Wurth Quality Inspector once corrections are completed.

Il fornitore si impegna

- ad effettuare, a sue spese, tutte le correzioni indicati su questo rapporto (tranne quelle contrassegnate "trattato dal PW");
- a completare tali correzioni prima del ___/___/_____ (data);
- a trasmettere una conferma all'ispettore qualità di Paul Wurth quando le correzioni sono state completate.

Supplier Representative:

Date:

Signature:

Rappresentante del fornitore: _____

Data _____

Firma _____

Legend: Legenda

PM	PW Project Manager Project Manager di PW	CA	PW Commercial Assistant Assistente Commerciale di PW	Id. No.	Identification Number Numero de Identificazione
PL	PW Project Leader Capo Progetto di PW	BU	PW Buyer Acquisitore di PW	QIP	Quality Inspection Plan Piano di Controllo della Qualità
TA	PW Technical Assistant Assistente Tecnico di PW	PO	Purchase Order Ordine di acquisto	PW	Paul Wurth
QM S	Quality Management System Sistema di Gestione per la Qualità			Supp	Supplier Fornitore

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APPENDIX B: MATERIAL NORMALLY CLASSIFIED UNDER CLASS "C", WITH EXCEPTION OF VERY DANGEROUS CASES

- Piping, fittings, flanges, packing, with exception of those materials used for dangerous fluids or substances (i.e. oxygen, methane, nitrogen or other inert gases when connected to oxygen, steam and overheated water mains, etc.)
- Valves and filters up to 16 NP, ND 200 and condensate traps up to ND 80, excluded those used for dangerous fluids or substances.
- Flexible hoses, quick couplings, lubricators
- Conduits, cable trays and relevant supports
- Normal standard machine tools without any particular performance
- Mechanical reducers and couplings up to 50 kw, and up to 1500 rpm
- Hydraulic pumps (vertical and horizontal types) up to 50 kw and up to 50 kw and up to 70 m H₂O head
- Compressors, blowers and fans up to 30 kw except those used for dangerous fluids or substances
- Hydraulic cylinders up to ND 200, working pressure up to 200 DN and up to 1000 m stroke
- Pneumatic cylinders up to ND 200 and up to 1000 mm stroke.
- Mechanical and/or hydraulic couplings up to 50 kw
- Auxiliary steel structures (stairs, walkways, roofing) and works in general not very demanding from the welding and/or bolting point of view, unless important pre-assembling works have not been already provided.
- Bolts in general, anchor and foundation bolts (not welded)
- Electric motors up to 50 Kw
- Air-cooled transformers up to 50 KVA and oil-cooled transformers up to 200 KVA
- MCC - PC up to current nominal values of 300 A
- Electrical boards for light distribution and local control drives
- Instruments like pressure meters, thermometers, temperature gages, level gages, thermal elements, flow meters and similar, except those used for dangerous fluids or substances
- Telephone, radio and video sets not included in the system; a special control program is necessary

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- Computers, except when they are already inserted in a plant system or when a special control program is foreseen.
- Components for the main and emergency lighting system (lighting fixtures, lamps, ballasts, etc.)
- Grounding system components (plants, bars, etc.)
- LV electric cables (power, secondary, for instruments) with exception of water-cooled cables and 10, 33 and 110 kV cables
- Batteries and battery charges of normal use
- Soundproofing components
- Sand for filters
- Heat insulation material
- Insulators (33 kV or higher Voltages excluded)
- Bolted steel structures of conveyors and relevant supports when not very demanding from the welding point of view and the structure stability, unless important pre-assembly works have not been already provided.
- Rollers, brackets, belt conveyors, drums and brakes for conveyors, drums and brakes for conveyor systems
- Components for heating, ventilation and conditioning plants (as for ex., nozzles, automatic control, channels, cooling groups up to 30 kw, heating units and fan-coils)
- Coverings, plugging, insulating panels and similar, etc.
- Doors, windows, skylights, etc.
- In general all steel, mechanical and electrical works, not very demanding and performed by suppliers considered reliable by PAUL WURTH ITALIA and whose production is specialized in this type of product.