МАГНИТОГОРСКИЙ
МЕТАЛЛУРГИЧЕСКИЙ
КОМБИНАТ

Public Joint Stock Company
Magnitogorsk Iron and Steel Works (MMK PJSC)

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Supplier Development Guide

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1 Introduction

1.1 In order to meet customer requirements and maintain PJSC MMK's image as a World Quality Steel Manufacturer, measures are taken to ensure compliance of PJSC MMK's QMS with ISO 9001:2015, IATF 16949:2016, STO Gazprom 9001-2018.

1.2 One of the key areas of activities is the development of PJSC MMK's suppliers by cascading the requirements of standards (listed above) on them to:

- ensure the supplies of materials and resources of stable quality that meet customer requirements (which are listed in the contract, including requirements of legal acts and other documents regulating product manufacturing);
- prevent deviations and losses in the supply chain by planning and implementing the actions to ensure product quality.

2 Scope of application

2.1 This Guide sets out the requirements for:

- Suppliers' QMS (current level and development);
- providing the necessary information for PJSC MMK;
- corrective actions in case of nonconforming products supplied to PJSC MMK;
- conducting suppliers QMS audits.

2.2 The requirements set forth in the present Guide apply to and shall be met by organizations supplying or planning to supply critical materials and equipment to PJSC MMK.

3 Normative References

3.1 The Guide uses references to the following documents:

- **ISO 9001:2015** Quality management systems. Requirements.
- **IATF 16949:2016** Fundamental requirements for quality management systems for the automotive industry and organizations, producing relevant service parts.
- **STO Gazprom 9001-2018** Quality management systems. Requirements.

4 Terms, Definitions and Abbreviations

4.1 The following terms shall be used in this Guide:

attestation of technologic process – assessment of process conformity with established requirements;

audit - systematic, independent and documented process of obtaining objective evidence and its objective assessment to determine the degree of compliance with the audit criteria;

critical material and technical resources - purchased types of inventories which have a direct impact on the quality of final products for automotive industry enterprises, PJSC Gazprom and their suppliers (materials included in the final products; equipment that forms the final properties of the product; materials that ensure the safety of the final properties of the final product during the transportation to the consumer) (term is used within the scope of this Guide);

critical processes - processes which critically affect product quality and form special characteristics of critical material and technical resources;

special processes – processes where the conformity of the resulting output cannot be

readily or economically validated, and found nonconformities become apparent only after the start of product using;

quality management system - part of the management system with respect to quality;

special product characteristics - product characteristics that may affect product safety or conformity to established requirements, functional suitability, performance characteristics or downstream processing of the product.

4.2 The following shortened terms are used in this Guide:

MTR - material and technical resources;

QMS - quality management system.

5 General requirements

5.1 Communication on Supplier QMS development shall take place via e-mail (address quality1@mmk.ru).

5.2 Russian language shall be used for communication. If it is not possible to provide information in Russian, the English language shall be used.

5.3 The «List of Critical Material and Technical Resources» can be found at http://www.mmk.ru in the section «For Suppliers», subsection «Supplier Development». Suppliers can use it to identify whether supplies are critical or not.

5.4 The designations «А» and «Г» in the «List of Critical Material and Technical Resources» identify the scope of use of the materials:

- «А» in the manufacture of steel products for automotive companies and their suppliers;
- «Г» in the manufacture of steel products for PJSC Gazprom and its suppliers.

5.5 For each critical inventory a special characteristic is defined in the column «Description of Special Characteristic». The Supplier shall identify the list of its critical processes that form the critical inventory special characteristic specified. The Supplier shall also identify its special processes (if there are any).

5.6 The Supplier shall manage the Critical and Special Processes in such a manner that achievement of the required level of the special characteristic is assured.

5.7 Information confirming the management of the critical and special processes in the form of Annex A shall be sent (on request) to the e-mail address: quality1@mmk.ru.

5.8 Information confirming the periodic attestation of the critical and special processes shall be sent (on request) to the e-mail address: quality1@mmk.ru.

5.9 The supplier is obliged to ensure that the supplied product complies with the current legislation and regulatory requirements established for the country of manufacture of MTR, as well as the destination country of MMK metal products such as the Russian Federation, Belarus, Uzbekistan, or other destination countries (if this information is provided for supplier). A letter (form of Annex B) on ensuring compliance is issued by the supplier for the period of validity of the contract and must be sent to the email address quality1@mmk.ru or provided during an audit. If the requirement of supplied products compliance with the requirements listed above is included in the contract, the provision of information is not required.

5.10 Besides the information specified in 5.7-5.9, the Supplier shall provide and send to the email address quality1@mmk.ru:

- information about every change made to the previously agreed upon with PJSC MMK properties and conditions of manufacture of critical materials - within a day from the moment the change was made;

- information about every nonconformity in the used technical processes and manufactured products identified by Supplier – within a day from the moment nonconformity was identified.

6 Suppliers' quality management system requirements

6.1 The minimum required level of development for suppliers of critical material and technical resources is ISO 9001:2015 QMS (certified by a certification body holding the accreditation mark of an IAF MLA recognized member).

6.2 Suppliers with a QMS that does not meet the minimum required level should schedule and implement certification with an IAF MLA accredited body within one year from the date of the contract. A copy of the received certificate must be sent to quality1@mmk.ru.

6.3 Requirement to develop suppliers to a level:

- IATF 16949:2016 applies to suppliers of critical materials and technical resources that have a direct impact on the quality of finished steel products for the automotive industry organizations and their suppliers (attribute «А» in the «List of critical materials and technical resources»);
- STO Gazprom 9001-2018 applies to suppliers of critical materials and technical resources that have a direct impact on the quality of finished steel products for PJSC Gazprom and its suppliers (attribute «Г» in the «List of critical materials and technical resources»).

6.4 Certification according to IATF 16949:2016 shall be scheduled by the Supplier within one year from the date of the contract conclusion and shall be implemented within two years from the date of the contract conclusion.

Compliance with IATF 16949:2016 requirements shall be confirmed by certification in body authorized by International Automotive Task Force (IATF).

6.5 A copy of the received certificate IATF 16949:2016 shall be sent to the e-mail address quality1@mmk.ru.

6.6 Until the certification of the QMS for compliance with IATF 16949:2016, the Supplier already needs to use:

- statistical methods (SPC);
- measurement system analysis (MSA);
- product/process FMEA;
- PPAP (Production Part Approval Process);
- APQP (Advanced Product Quality Planning);
- 8D.

6.7 If Supplier informs that it is impossible to pass the certification procedure according to IATF 16949:2016, the conclusion on compliance with the requirements of IATF 16949:2016 will be formulated during the audit of the second party (audit by MMK PJSC).

6.8 Supplier shall cascade the PJSC MMK’s requirements on its suppliers for their development and building analogical relationships throughout the supply chain.

7 Actions to be taken by the supplier in case PJSC MMK reveals the delivery of nonconforming products

7.1 Levels of nonconformity with regard to the quality of critical materials, supplied to PJSC MMK have been established as follows:

- target level of 0%;
- threshold level 0,5% of delivery volume.

Information of exceeding/maintaining the threshold level of nonconformities with regard to the quality is reflected on a quarterly basis and annually in the personal account of supplier on the electronic trading platform, tab «Levels of nonconformity of materials» (access to the resource through the official site of PJSC MMK - http://www.mmk.ru, tab «Login to ETP»).

7.2 If the fact of supply of nonconforming critical materials is detected, work on solving the problem is carried out in the 8D format using the personal account of the supplier on the electronic trading platform, tab «Report 8D» (access to the resource through the official site of PJSC MMK - http://www.mmk.ru, tab «Login to ETP»).

If the supplier does not have a personal account, its registration is performed through the official website of PJSC MMK - http://www.mmk.ru, tab «Register on ETP».

Information on problem solving shall be provided in the form of Annex C. Deadline for submitting the information:

- for step D3 «Deterrent actions» - 10 days from the date of registration of PJSC MMK's letter;
- for Step D8 «Overall Performance Assessment» (including Steps D4 «Root Cause of Problem/Nonconformance» and D5 «Corrective Action») - 30 days from the date of PJSC MMK's letter registration.

On Step D4 root cause is determined in two ways: the occurrence of a problem/nonconformance and the failure of the supplier to detect the problem/nonconformance before shipping the goods to PJSC MMK. To determine the root cause it is necessary to use the «5 WHYs» method – a technique for searching origin of a problem/nonconformance by repeating the question «WHY» five times consecutively. Each subsequent question is asked to answer the previous one.

For suppliers who are non-manufacturers of the material and technical resources, the information provided in 8D format, must be signed and stamped by the manufacturer.

7.3 The effectiveness of actions taken by the Supplier will be confirmed by PJSC MMK if there is no recurrence of the identified problem within 12 months from the date of registration of the Supplier's letter on Step D8. For Suppliers that aren't taking effective actions to prevent nonconformity recurrence, contract provides actions of executive type (including suspension of supplies for a quarter of the year).

8 Requirements for audits of suppliers' QMS

8.1 Suppliers' audits are conducted in accordance with the audit schedule approved by the General Director of PJSC MMK.

8.2 The schedule of audits shall primarily include:

- the suppliers which have made more than one delivery of nonconforming materials and technical resources during the year;
- the suppliers which have not achieved the required level of QMS development;
- the suppliers which have not confirmed the conformance with PJSK MMK's requirements based on the previous audit results;
- new suppliers, selected based on the results of competitive procedures, or suppliers, whose products have been tested under the conditions of PJSC MMK and approved for industrial use.

8.3 The list of audit questions is formulated in the check-list. The check-list is posted on PJSC MMK website http://www.mmk.ru in the section «For Suppliers», subsection «Supplier Development».

8.4 The checklist includes, among other things, questions relating to compliance with standards:

- IATF 16949:2016 (including the application of MSA, FMEA, SPC methodologies in the work);
- STO Gazprom 9001-2018,

aimed at the development of the supplier, to prepare it for the certification procedure in accordance with the listed standards/to get the conclusion on compliance with the requirements.

8.5 The audit can be conducted at the Supplier's premises (in person or in remote form using video communication) or in the form of self-assessment. The form of audit shall be determined by PJSC MMK at its own discretion.

8.6 The objectives of audits are:

- assessment of the supplier's ability to supply products that meet the requirements of PJSC MMK, automotive industry organizations, PJSC Gazprom and their suppliers;
- confirmation of compliance of the suppliers' QMS with the requirements of ISO 9001:2015, IATF 16949:2016 and STO Gazprom 9001-2018;
- identification of opportunities and ways of improvement.

8.7 The preparation and conducting of audits include:

- informing the supplier of the forthcoming audit;
- agreeing on the date of the audit in case of a face-to-face audit (PJSC MMK determines the date of the audit and notifies the supplier by a letter, no later than 14 calendar days in advance);
- requesting and providing documentation;
- immediate examination (or examination of documentation in the case of a remote audit) by filling in a check-list;
- dispatch of reports by the auditors (within 5 working days from the closing date of the audit);
- sending the signed/approved corrective action plan by the supplier to quality1@mmk.ru (within 10 calendar days from the date of sending the approved report), if any comments are found;
- control of the corrective action plan execution. Confirmation of the corrective action execution by supplier is organized using the supplier's personal account on the electronic trading platform, the «Карточка КД» tab (login to the resource via the official website of PJSC MMK - http://www.mmk.ru, tab «Login to ETP»).

8.8 When completing the checklist, the choice of «YES» response must be accompanied by the provision of audit evidence: documented information (signed and dated by the manager) confirming compliance with the requirements. The documents must be provided in full (providing only the cover page or a reference to a list of documents instead of the text of the document cannot be used as evidence of the audit). It is permissible to provide documented information with blacked out information which, in the Supplier's opinion, constitutes a trade secret.

8.9 The audit may be stopped in the following cases:

- refusal to provide the necessary information and/or access to audit-relevant areas;
- law violations;
- violation of safety requirements;
- active obstruct to the auditor;
- providing obviously false evidence.

8.10 When audits are carried out at the Supplier's premises, copies of supporting documents shall be made available immediately at the time of the audit.

8.11 When audits are conducted in the remote form, documents (audit evidences) shall be provided together with a completed check-list. The deadline for the

submission of the completed check-list with the supporting documents shall be specified in a letter to the Supplier. If the documents have not been submitted in full, the missing documents must be sent at auditor's request to the auditor's e-mail address quality1@mmk.ru at the moment of the audit conduction immediately (for all missing items).

8.12 If the supplier fails to submit the audit evidence within the specified deadline, a «NO» shall be entered on the checklist against the question.

8.13 A conclusion on the supplier's compliance with the PJSC MMK requirements is made when the supplier receives 70 or more points. If repeated nonconformities are identified during the audit (similar nonconformities were formulated during the previous audit) the final score will be reduced by 5 points for each repeated nonconformity.

8.14 In case of failure to submit the documents in full by the specified deadline, the audit is deemed to have failed.

8.15 PJSC KAMAZ (PJSC MMK's consumer) can conduct an audit of Supplier's manufacture upon prior notice.

8.16 In cases of failure with consumer requirements:

- supplier's refusal to conduct an audit, audit avoidance (recognition of the audit as failed);
- obtaining unsatisfactory audit results (in case of repeated audit);
- refusal to sign the audit report;
- not providing corrective actions plan within the specified period (based on the results of the audit); Deputy General Director for Commerce
- non-fulfillment / incomplete fulfillment or failure to meet deadlines of the corrective actions (based on the results of the audit);
- not providing 8D report on the delivery of nonconforming goods within the specified period;
- failure to apply effective corrective measures to eliminate the possibility of recurrence of the facts of delivery of nonconforming quality goods

the information will be sent to the Commercial Director, Deputy General Director for Commerce and the General Director of PJSC MMK for making management decisions, including the possibility of supply limitation, as well as to the supplier's QMS certification body to initiate an unscheduled audit of its QMS.

Annex A
(mandatory)
Form for providing information
on the management of critical and special processes at the supplier

Information on the management of critical processes

Name of product	Name of product's special characteristic	Name of the critical process[1]	Controlled parameters of the critical process	Frequency of monitoring	Designation and name of supporting technical documentation	Information of technical process attestation (№ of validation act, date , validity)

Information on the management of special processes

Name of product	Name of product's special characteristic	Name of the special process [2]	Designation and name of supporting technical documentation	Information of technical process attestation (№ of validation act, date, validity)

Supplier's manager,
position and Company's name _____ Name and Surname
(Signature, date)

1 critical processes - processes which critically affect product quality and form special characteristics of critical material and technical resources;

2 special processes – processes where the conformity of the resulting output cannot be readily or economically validated, and found nonconformities become apparent only after the start of product using

Annex B
(mandatory)

The form of the Supplier's letter on fulfillment of PJSC MMK requirements

_____
Form of ownership and company's name

Hereby, the compliance of the supplied products with the current legislative and regulatory requirements established for the country of manufacture of MTR, as well as the destination countries of MMK metal products such as the Russian Federation, Belarus, Uzbekistan, and other (if this information will be provided) is ensured.

_____
Manager's position and signature with full name

_____
Date

For suppliers who are not manufacturers of MTR, the letter must contain the signature and stamp of the manufacturer.

Annex C
(mandatory)
The form of Supplier report on the solution of an identified nonconformance in 8D format

Report on problem solving in 8D format

in _____
(supplier's name)

Step	Name of the Step	Description/ Actions	Time of realization	Responsible for implementation
D1	Brief description of the problem/ nonconformance			
D2	Location of identification the problem/nonconformance			
D3	Deterrent actions (temporary measures)[1]			
D4	Root cause[2]: - of occurrence the nonconformance; - not detecting the nonconformance before shipping (to determinate root cause it is necessary to use the «5 WHYs»[3] method)			
D5	Corrective actions[4] to eliminate causes - of occurrence the nonconformance; - not detecting the nonconformance before shipping			
D6	Impact assessment of corrective action by Supplier			
D7	Preventive actions[5] to eliminate causes - of occurrence the nonconformance; - not detecting the nonconformance before shipping			
D8	Assessment of the overall performance of the action taken			

[1] Deterrent actions are quick measures to protect the consumer, aimed at preventing the shipment of goods with similar nonconformance to PJSC MMK (checking warehouses and goods in transit from a batch with nonconformance already identified by the consumer or from batches where similar nonconformance are possible)

[2] The root cause is the reason:
- why the problem/nonconformance occurs;
- why the problem/nonconformance was not detected before shipping goods to PJSC MMK

[3] «5 WHYs» – a technique for searching origin of a problem/nonconformance by repeating the question «WHY» five times consecutively. Each subsequent question is asked to answer the previous one

[4] Corrective actions - actions aimed at eliminating the root cause of occurrence the problem and not detecting the problem before shipping

[5] Preventive actions - actions aimed at eliminating the causes of possible nonconformities in similar processes and situations.