

QUALITY ASSURANCE AND CONTROL SYSTEM

1. Introduction

General

Mostprojekt a.d. Beograd, whose headquarter lies in Serbia, is an engineering consultancy company formed for operations in countries of ex Yugoslavia. The company provides consultancy services based on civil engineering “know-how” and related professional disciplines. The company is not financially dependent on any producers, suppliers, or contractors.

Mostprojekt a.d. Beograd, shall hereafter be referred to in the abbreviated form, MOSTPROJEKT. Where appropriate, the abbreviation QM shall hereafter be used for the term quality management.

The quality management system applies to all services undertaken by MOSTPROJEKT. The aim of the MOSTPROJEKT quality management system is to ensure following:

- Client confidence in MOSTPROJEKT ability to meet their consultancy needs and to provide qualified and satisfactory professional services
- Promotion of employee participation in the continuous improvement of the working practices and procedures
- Greater effectiveness and competitiveness.

2. Management Responsibility

Quality Principles

MOSTPROJEKT objective is to provide competent consulting services at the high level of expertise, thereby ensuring that value is added to the Client’s organization, also incorporating socially related factors with focus on health, safety, environment, and social conditions.

MOSTPROJEKT objectives are to generate quality by complying with the following principles:

- a) Every employee has a role to play in generating quality
- b) All employees must be fully aware of how they will add value to the clients.
- c) All employees shall seek, apply, and exchange “best practices”

- d) All employees must stipulate goals and actions in order to improve quality
- e) The project manager shall ensure that the project complies with the quality management system
- f) The project manager shall make sure that the employees are familiar with, understand, and comply with the quality management system.

MOSTPROJEKT General Manager (GM) and Executive Managers (EM) are responsible for ensuring that company quality policy and principles are clearly understood and adhered to at all level of the company.

Organization

MOSTPROJEKT is a small company, and its organization can be perceived as project organization, which performs specific tasks. It means that, in the most cases, the Project Manager (PM) is also the Quality Assurance Manager (QAM).

Among the project staff there is Quality Assurance Engineer who is responsible for the implementation of the quality management system. His functions include:

- Assisting to the Project Manager in setting up project quality management and being generally available to project staff to discuss QM related matters.
- continuous assessment of the effectiveness of the QM
- continuous assessment for possible improvements
- Recommending measures to the GM / EM / PM for prevention of errors and nonconformity with QM.
- identifying and solving quality problems
- Controlling the rectification of errors until satisfactory conditions is restored.

Among the Project staff, each employee is responsible for her / his own work.

3. Quality Management Program

Consultancy Agreements

Most of the assignments and projects undertaken by MOSTPROJEKT cannot be defined in detail. Prior to the conclusion of an agreement special input is often required to allow the Client and MOSTPROJEKT to agree on the scope of services. Setting out the targets and conditions of a project constitutes the first determination of project quality.

Before MOSTPROJEKT submits a tender, it is reviewed in order to ensure that:

- All aspects and requirements are covered
- The service tendered for is clearly defined
- Possible differences between invitation to tender and the tender are resolved
- The proposed resources are sufficient to carry out the project.

The agreement between the Client and MOSTPROJEKT shall be set out in writing and shall include:

- The scope of consultancy, the basis for performing the service and the form in which the final result to be presented
- The Client services
- Time schedule, deadlines for MOSTPROJEKT performance as well as for Client decisions and services
- Organizational interfaces between MOSTPROJEKT and Client

The agreement is reviewed to ensure that:

- The services are clearly defined
- Discrepancies between a tender and the agreement are resolved
- The requisite resources for carrying out the project are available

The Project Manager is authorized to deal with any amendments to the agreement so that all relevant parties are kept informed.

Performance of Professional Services

Planning and organization

The Project Manager formulates plans for each new project to ensure satisfactory management of the project. Any requirements for external assistance and facilities are identified. Responsibilities for each individual activity are defined. The quality plan establishes:

- scope of works and project basis
- interfaces
- external quality management requirements
- involved parties
- project organization, including responsibilities and authorities
- time schedule
- activities and financial circumstances
- co-ordination, including scope of meetings
- potential problem areas
- health, safety and environment
- procedures to be followed up during project execution
- extent of check, review and approval activities, including approval by Client and authorities
- procedure for checking possible sub-consultants' services
- document and data control
- technical facilities to be used
- project changes
- check of as-built technical documentation

Conditions

The conditions for the performance of a consultancy service are set out in the quality plan. These conditions are evaluated, and any omissions, ambiguities, and conflicting requirements are resolved.

Performance

The project is carried out in accordance with the prepared plans. The Project Manager regularly monitors and assesses quality, time and costs and initiates any corrective action indicated by the assessment. The result of the consultancy service is normally documented in the form of reports, drawings, calculations, etc.

Information relating to the project shall not be handed over to a third party without specific written consent of the Client.

Checking and Review

All calculations, drawings, report, etc. is checked. There are three distinct types of checks:

- a) Initial check: check performed by the person who prepared the document. Always performed.
- b) Discipline check: Check of the technical content, performed by the engineer who has not directly participated in the preparation of the document, but who is qualified to do so. Always performed.
- c) Interface check: checking the interface between the activities of two or more disciplines. Performed when necessary.

Checking is conducted to ensure that the documents comply with and fulfill all specified requirements and are error-free.

One or more persons review the project, in whole or in a part.

All checks and reviews are documented.

3.2.3.2. Changes

The changes are to be understood as changes in the scope of the consultancy services as opposed to corrections due to errors.

The Project Manager ensures that:

- A written amendment to the agreement is made with the Client before effecting any change
- Ongoing work on or use of the unsatisfactory solution is discontinued
- A change is subject to the same QM activities as its predecessor

3.2.3.3. Feedback

Feedback of both positive and negative experiences is an essential tool in the process of maintaining and updating the expertise of the each engineer and the professional competence of the company. Experience acquired is passed on to the colleagues through regular company meetings, as well as through informal, professional, and personal networks.

3.3. Information Management and Document and Data Control

3.3.1. Information management

MOSTPROJEKT perceives professional expertise as a resource of the equal importance to capital, staff, and technical facilities. This applies to expertise of both internal and external origin.

MOSTPROJEKT professional information management system comprises:

- a) Storage of important information on each individual MOSTPROJEKT project,
- b) Storage of the key information on engineers' professional qualifications,
- c) An archive of all completed projects
- d) Internal circulation of technical publications
- e) Exchange of experiences
- f) Library with relevant international codes and technical norms, books and technical publications.

3.3.2. Document and data control

MOSTPROJEKT established system for control of the distribution and handling of the received documents and digital data (files) to ensure that the appropriate personnel handle these and that they are securely stored.

Calculations, drawings, reports, etc. are marked with their revision state and the initials of those who have prepared, checked, and approved the documents. The revision states are recorded in registration lists and the documents are distributed according to the distribution lists. Obsolete calculations, drawings, reports, etc. are clearly marked and appropriately stored, so to prevent inadvertent use.

A corrected document / data file is subject to the same checking and approval procedure as original. Corrections to the preceding version are marked on the document / data file.

3.4. Purchasing of Services and Products

3.4.1. Sub-consultancy

MOSTPROJEKT evaluates a sub-consultant based in part on the qualification profile compared to the nature of the supplementary expertise required by the project team. The result of the evaluation is documented.

The agreement shall be in writing and shall include definitions of the scope of the consultancy service and the quality system requirements. Before the agreement is signed, MOSTPROJEKT and sub-consultant to ensure that the specified requirements are adequate review it mutually. On receipt of a service, MOSTPROJEKT checks that the result complies with terms of agreement.

3.4.2. Partners

MOSTPROJEKT evaluates partners based in part on their qualification profiles compared the supplementary expertise required by the project team. The result of evaluation is documented.

3.5. Client – Supplied Services

On receipt of a service from a Client, MOSTPROJEKT verifies that the result fulfills the terms of the agreement.

3.6. Control of Errors

In the event of an error being detected, its consequences are assessed and the need for corrective action is decided. The extent and possible impact of the error determine who is to assess the error and determine what action to be taken.

If it is decided to correct the error:

- It is corrected throughout the project
- The correction is a subject to the same checks and reviews as the original solution
- The consequences of the correction are communicated to all parties concerned.

If an error is not corrected, this is deemed a change to the project and treated accordingly.

3.7. Corrective and Preventive Action

3.7.1. Corrective Action

When an error has been detected, the Project Manager takes measures to determine the reasons for the error and to preclude recurrence.

The extent of such measures will depend on the nature and consequences of the error. Corrective actions will normally be affected the project organization.

3.7.2. Preventive Action

The Project Manager and General Manager record any Client complaints or errors which may have time or financial repercussions if detected after the approval of a document.

3.8. Control of Quality Records

The Project Manager is responsible for documenting the quality achieved and for demonstrating that the QM system functions efficiently. The scope, recording, storage, storage periods, and disposition of the quality records are set out in the quality plan.

During the performance of the service, documents to be recorded and filed include:

- documents and files, which would allow anyone not directly involved in providing the service, to reconstruct its progress,
- documents and files which demonstrate compliance with the terms and conditions of agreement,
- Documents, which demonstrate the completed checks.

Project material is recorded and stored for final filing in a manner that:

- the performance of the consultancy service may be documented,
- It can provide the basis of any continuation of the project.

Documents and files are recorded, organized, and stored to avoid accidental damage. When finally filed storage time-limit is set, amounting to a minimum of one year following the expiry of the period of liability. Diskettes, CD-s and DVD-s are labeled, packed, and stored, so as to prevent loss of any information or confusion with any other.

Quality records of a project are available to the Client.

3.9. Training

The professional qualifications of the employees are of crucial importance to the quality services by MOSTPROJEKT.

General Manager gives regular support and encouragement to the continued development of the individual employee on the basis of her / his needs and expectations, work tasks and the projected development of the company.

Records are kept of employees' qualifications, project involved, participations in courses, conferences, seminars, etc.