



CONSTRUCTION MANAGEMENT & CONSULTING
Sheraton Casino & Parking Quality Management Program

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References

- ISO 9000: 2000 - Quality Management Systems - Fundamentals and Vocabulary
- ISO 9001: 2000 - Quality Management Systems - Requirements
- ISO 9004: 2000 - Quality Management systems - Guidelines for Performance Improvement
- CMC LTD: - Quality Manual, Quality Procedures

Definitions

Company – CMC LTD (CMC)

QC- Quality Control

QMS-Quality Management System

PQP- Project Quality Plan

Definitions of quality assurance and quality management terminology shall be as given by ISO 9000:2000

Quality Management System

General

The Quality Management System (QMS) aims to achieve Customer satisfaction by meeting the contractual requirements.

Quality Management System Documents

Structure of QMS documents is following:

Level 1 – Quality Manual for Sheraton Casino & Parking

Level 2 – Quality Management System Procedures for Sheraton Casino & Parking

Level 3 – Project Quality Plan, Inspection and Test Plans, Documents and Records for Sheraton Casino & Parking

Project specific documents developed during project performance will be identified in Construction Document Registers maintained by Project Quality Coordinator.

Where applicable, all national/international codes and standards referred in specific Customer specifications such as ASME, API, BS and ISO etc. shall be used in the projects

Control of Quality Records

The objective for establishing and maintaining the records is to provide evidence of the conformity to requirements and of the effective operation of the QMS

All functional heads of Sheraton Casino & Parking project are responsible to ensure the collection, registration and systematic maintenance of the Quality records within the scope of their work.

QC Coordinator *Mr.....* shall collect the ongoing testing, inspection records daily and all relevant data shall be stored as an integral database.

All Quality records of Sheraton Casino & Parking pertaining to the Quality System and Project, as applicable, generated by both the Contractor and CMC are stored either as computer database under defined System names and/or saved as hard copy in designated locations. The retention period shall be 10 years unless specified in the contract.

Management Responsibility

Management commitment

The commitment of the CMC Management of Sheraton Casino & Parking project to developing and continuously improving the QMS and its effectiveness is demonstrated by the following means:

- Communicating the importance of meeting the requirements of Ras Al Khaima Investment Authority LLC which include;
legal and regulatory requirements, through quality policy, special meetings and internal notes;
- Establishing the quality policy and quantified quality objectives and their communication at all appropriate levels and functions, and evaluation of the results by conducting quality management reviews;
- Supplying the resources (qualified personnel and “best practice”) for the project activities.

Customer focus

Quality standards, quality benchmarks and technical requirements are clearly set, by Ras Al Khaima Investment Authority LLC, agreed with the full circle of the affected authorities as defined by the employer,

optimized by CMC, again returned for final verification by the client and afterwards defined as a must in the tender documents. The implementation of the contractual requirements is carried out under the responsibility of the CMC Project Manager, Mr. ..., and CMC QA/QC Coordinator, Mr. Customer's satisfaction is measured for the Project, the necessary corrective/preventive actions are taken and the results are evaluated during the management review.

Quality Policy

Sheraton Casino & Parking CMC Management takes care of continual improvement of the service quality that ensures successful implementation of the company activities, raises client's confidence and conformity of Company's services with the highest market standards. This facilitates to the successful implementation of the project.

The quality policy includes:

- creation and support to the Company's entire quality management system oriented at all the activities in compliance with the quality management standard requirements;
- meeting of Ras Al Khaima Investment Authority LLC Group requirements;
- continual improvement of quality of service, production and processes.

Sheraton Casino & Parking CMC Management is responsible for the quality policy and aims at:

- achieving competitive service and production through maximally satisfying its clients;
- establishing and developing quality management system;
- reducing failure and deficiency reporting through the raising employees' professionalism.

CMC emphasizes to take care of continual improvement of the quality of conducted works through improving the working results as well as goal-oriented accomplishing all kinds of activities and processes ensuring Company's success at the market.

All representatives of CMC are responsible for implementing the tasks in the sphere of quality policy.

Each employee is responsible for meeting requirements indicated in the Quality program.

Quality Planning

Quality planning includes:

- Planning of the quality management system for each stage of Sheraton Casino & Parking project development, and
- Setting project objectives and achievement of these objectives.

The prime project quality objectives are as follows:

- Implement effective planning, resourcing and control of the work in accordance with project requirements;
- Ensure use of ultimate quality products, quality services and quality processes in the range of the budget, schedule and standards defined by Ras Al Khaima Investment Authority LLC Group;
- Achieve timely completion of the project within the set budget parameters;
- Manage and minimize social impacts and encourage social development activities.

Responsibility, Authority and Communication

Responsibility and Authority

Responsibility and authority for all personnel is defined by their job descriptions.

CMC Organizational chart or each project - indicating interrelationship and duties of all process owners is modified for each particular project as per requirements and priorities of the task, is preliminary communicated & agreed with Ras Al Khaima Investment Authority LLC and issued in the set of project documents “PROJECT MANUAL”.

Responsibilities of the key project personnel in light of QC/QA engaged into the “front line” quality control & quality assurance:

SHERATON CASINO & PARKING PROJECT MANAGER

- Carries overall responsibility for the execution of the project to quality, budget, schedule and scope set by the Company;
- The overall interface to maintain both HSE and Quality standards across the project;
- Signs and approves all quality documents, ITPs, Material certificates;
- Verifies and approves Method of Statement, sets expectations and goals for the Contractor and verifies its implementation;
- Directs the activities of the project team members with regards to implementing the Project Quality Plan;
- Ensures the availability of adequate resources for implementing the Project Quality Plan;
- Ensures that all personnel assigned to the project are adequately qualified and experienced in their field of expertise;
- Ensures that potential problems are identified and appropriate corrective preventive / improvement

actions are initiated;

- Verifies and assess quality standards of the contractors at all stages of the project development.

SITE SUPERVISOR

Reports to the Project Manager. They have responsibility for the supervision on execution of the respective scope of the Site construction activities within allocated budget, schedule and required quality. Their main responsibilities include:

- Reviews project quality documents to ensure complete comprehension and timely execution of Project requirements are followed;
- Deputizes for Project Manager on quality/technical/planning;
- Supervises and co-ordinates activities at site to ensure that work is being executed in accordance with the requirements of the Project Quality Plan;
- Reviews the method statements and risk assessment of jobs prepared by construction contractors;
- laisses with the Construction Subcontractors to ensure compliance with Project Quality Plan;
- Checks that all personnel under their control are fully conversant with the requirements of the Project Quality Plan;

SHERATON CASINO & PARKING PROJECT QA/QC COORDINATOR

The Project QA/QC Manager reports to the Project Manager and is responsible for all Quality related activities & processes of the project. The responsibilities include:

- Reviews all contract documents to ensure identification and comprehension of all Quality requirements.
- Prepares and maintains the Project Quality Plan.
- Ensures implementation of the PQP.
- Ensures that all project team members are fully conversant with their specific tasks as per Sheraton Casino & Parking Project Quality Plan.
- Reports to the PM on performance of particular team members in relation to the quality issues;
- Prepares, executes and monitors Audit Program.
- Ensures Inspections and Tests per Sheraton Casino & Parking Project Inspection and Test Plans are

implemented and are adequately Documented.

- Identifies non-conformance, suggests and agrees on corrective actions with responsible management and the Ras Al Khaima Investment Authority LLC representatives;
- Liaises with the Ras Al Khaima Investment Authority LLC on all matters related to Quality;
- Liaises with Supplier / *name of the Contractor* / Vendor QA/QC Management;
- Co-ordinates all “Third Party” quality inspection activities;
- Reports daily on Quality processes to CMC and Ras Al Khaima Investment Authority LLC representatives;
- Performs other quality assurance and control functions;
- Checks & reviews designs/specifications for technical quality/adequacy;
- Ensures that Sheraton Casino & Parking Quality Plan requirements are achieved;
- Maintains all Sheraton Casino & Parking project quality records and communicated to the agreed circle of recipients;
- Holds Monthly Quality management review meetings;
- Liaises and controls other discipline engineers on quality matters;
- Reviews equipment/material documentation against purchase order;
- Tracks quality performance of *name of the Contractor* and recommends actions;
- Carries out inspections and surveillances;
- Prepares inspection reports/quality records;
- Reviews inspection and test records and authorizes them for *name of the Contractor*;
- Reviews material certificates, calibration certificates, and all other applicable documentation of ongoing and/or planned processes;
- Ensuring, by means of Inspection and Quality audits that the processes of the Quality Management System are established, implemented and maintained;
- Reporting to Management on the performance of the Quality Management System, including needs for improvement during the management review or by distributing relevant reports;
- Promoting awareness of Company's requirements within Sheraton Casino & Parking organization by means of audits, training, meetings and internal communication.

Monthly Quality Management Review

Sheraton Casino & Parking Quality Management Review meeting holds on a monthly basis. The time for the meeting is determined together with Ras Al Khaima Investment Authority LLC. Quality review meetings determine the continuing suitability, adequacy and effectiveness of the QMS. Sheraton Casino

& Parking Project Manager and/or QA/QC Coordinator chairs this meeting.

During the review, the needs for changes and/or any modifications to the QMS, Quality Policy and Quality Objectives are particularly evaluated on the basis of the actual needs and priorities of Sheraton Casino & Parking, recent quality issues and problematics.

The input data for management reviews will include:

- Discuss and asses results of all types of audits;
- Client's feedback, queries and complaints;
- process quality performance and construction quality conformance;
- status of preventive / corrective actions and follow-up actions from previous reviews;
- possible changes affecting the QMS and the quality policy and objectives;
- recommendations for improvement;
- safety and environmental results;
- status of identified risks.

The output data from Management Review may include the decisions regarding:

- Actions to improve of Sheraton Casino & Parking Quality Management System and its processes;
- Actions to improve construction activities with respect to Company's requirements;
- Resource needs;
- Achievement of quality objectives.

Ras Al Khaima Investment Authority LLC Related Processes

Customer Communication

All information and documents received from or issued to Customer shall be handled, distributed, filed, reviewed and followed-up by CMC Management with the aim of meeting Ras Al Khaima Investment Authority LLC requirements.

In addition, Contractor will strive to gather adequate Ras Al Khaima Investment Authority LLC feedback on the quality of services provided.

Sheraton Casino & Parking Team shall maintain Technical Document Register and Procurement Register for planning and monitoring of engineering deliverables.

- Implementation of the quality surveillance requirements for materials as determined

by the criticality ratings using Inspection and Test Plans.

- Documentation of clarification process;
- Recording and documentation of changes;
- Management of all drawings (including revised drawings);

Procurement Control

Sheraton Casino & Parking Quality Control Manager is responsible for ensuring QA/QC participation in:

- Evaluation of suppliers
- Reviewing the Suppliers quality submission
- Verifying products as per relevant ITPs.

It shall be ensured that Suppliers are selected on the basis of their ability to meet the quality and delivery requirements specified in the purchase documents.

The evaluation of Suppliers shall be dependent upon the type of product, the Supplier's ability and the impact of product on the final installation.

Ras Al Khaima Investment Authority LLC approval shall be obtained to use selected suppliers.

Purchasing information

QA/QC Coordinator ensures that the purchase packages adequately define the relevant requirements. The Company technical and quality requirements should be fully incorporated in these documents, based on the nature of the product/item.

Prior to release, all technical data and documents shall be reviewed and approved by the Project Manager. The purchasing documents shall indicate that Company or Third Parties shall be given the right to verify at source the product or service related activities.

Quality Verification of purchased products and services

The following actions shall ensure the compliance with the PQP:

- Review, assess and control implementation of Contractor's documents by PM and QC/QA Coordinator (Quality Plans, Procedures and Inspection and Test Plans);
- Planned inspection and surveillance considering the importance of the product by QC Officer or Third Party Inspector;

- Follow-up of the Purchase Supply Chain of the project;
- Receiving inspection at site by CMC QC;
- Issuing enquiries;
- Carrying out technical and commercial evaluations.

Sheraton Casino & Parking Team under the responsibility of CMC Manager shall plan and control the construction, inspection and testing activities ensuring the following:

- Availability of specifications, plans, drawings, procedures, processes and work instructions that define the characteristics of the construction, inspection and testing.
- Use and maintenance of suitable construction, installation, inspection and testing equipment.
- Availability and use of suitable measuring and monitoring equipment.
- Availability of work force with proper qualification. Implementation of suitable monitoring and measurement activities.

Validation of processes

All those processes, where the effect on quality is not immediately verified, such as welding and concrete mixing will be validated and Company approval obtained prior to their use. The validation measures include the following actions:

- Identification, preparation and approval of the procedure specifications (e.g. WPS);
- Verification and acceptance of materials;
- Process evaluation qualification using approved equipment and qualified personnel;
- All qualification records (e.g. visual, destructive and non destructive testing) generated, approved and maintained;
- Revalidation when any essential variable is changed.

Identification and traceability

The identification and traceability system shall be applied for the Inspection, test and quality verification status.

The identification of items of equipment and certified materials, ITP and all test records shall be maintained by Sheraton Casino & Parking project. Material certificates, inspection reports are supporting elements for identification and traceability of products.

Responsibilities for identification and traceability are as follows:

- Project QA/QC Coordinator, Mr. ..., establishes and ensures appropriate system for

identification and traceability;

- Quality Control officer, Mr. ..., verifies the required identification during inspection activities.

Ras Al Khaima Investment Authority LLC property

Property identified under the particular condition of the contract as an Ras Al Khaima Investment Authority LLC's material asset before set up / installation (e.g. "Materials on Site" principle) will be identified, verified, stored, documented, protected and maintained adequately under the surveillance of the QA/QC Coordinator, Mr. ..., while under Client's responsibility.

If available, these type of assets shall be inspected and accepted prior to incorporation into the stores. They will be identified and stored in a manner avoiding damage and deterioration.

QA/QC requires sufficient information and documentation to enable him to check the goods adequately.

- Checks and verifies materials, reports non-conformities and discrepancies to Project management so as to inform Client.
- Assigns proper storage criteria, checks and maintains integrity and quality adequacy of the W/H-se facility, ensures that appropriate facilities are made available for handling, packaging, storage and preservation of products.
- Checks delivery handling, packaging and storage activities.

Instructs employer on proper monitoring preservation/maintenance program.

Storage

Advises Ras Al Khaima Investment Authority LLC on secured storage areas for storage purpose, with suitable access routes to them, including covered and uncovered areas and the type of materials to be stored in each location. The open storage area on site shall be suitably protected to prevent entry of unauthorized persons.

The condition of products shall be verified during the evaluation of the balance of products in stock.

Protection

Advises and monitors protection of the items during storage or handling as per instructions obtained from the Suppliers and as per relevant quality standards preliminary agreed with the client.

Control of Monitoring and Measuring Devices

The QA&QC Managers in co-ordination with the Project Manager identifies the regular check timeframe for the monitoring and measuring devices used during the construction process.

Through regular evidence check verifies that measurement devices are calibrated as per the requirement.

QA/QC maintains the Log of Quality related measuring and test equipment and monitor their calibration status.

Customer Satisfaction

During the execution of works, any Ras Al Khaima Investment Authority LLC's comments regarding construction activities, queries reference to CMC QMS Observations etc. shall be analyzed and relevant corrective/preventive actions carried out by the CMC Sheraton Casino & Parking Management in order to identify, improve the problem area and prevent its reoccurrence.

During project execution and post-delivery phases, any complaint by Ras Al Khaima Investment Authority LLC shall be subject to immediate and satisfactory resolution.

Audits

Quality Manager plans and implements audits on regular basis with assistance of the CMC team (assigned by him) or using trained and certified outsource technical expertise or auditors whenever required.

The audit process shall be implemented in a planned manner and based on the status and importance of the processes and activities, and the results of the previous audits.

The Audit Schedule shall be maintained by the Quality Manager and preliminary agreed with the authorized representative of the employer.

The audit plan shall cover all activities carried out by *Name of the Contractor*, *Name of the Contractor* subcontractors and Suppliers. All audit reports shall be available for Customer review.

Quality Manager shall notifies Ras Al Khaima Investment Authority LLC 10 days in advance of the performance of the audits. Additionally, one copy of the audit report shall be forwarded to Ras Al Khaima Investment Authority LLC within 10 days of the conclusion of the audit.

The Process Owners shall perform the corrective/preventive actions relating to audits results. The Quality Manager shall carry out follow-up actions and distribution of relevant records.

The Project QA/QC Manager, Mr. ..., shall be responsible tracking all relevant actions till their close out using "Audit Report Status Log" and "Corrective Action Request Status Log".

After identifying the problem and preventing its re occurrence, CMC QA/QC Coordinator, Mr. ..., evaluates "Root Cause Failure Analysis" report. The reporting process involves all affected parties and requires active feedback and input from their side to see the essence of the problem and implement effective mechanism for elimination;

Monitoring and Measurement of Processes

All processes and relevant procedures shall be monitored and/or measured by the CMC QA/QC Process Owner. The results of monitoring shall be recorded in the relevant reports and distributed to the client. Based on the reports main agenda of the monthly quality management meetings are defined.

Monitoring and Measurement of Product

Depending on the nature of the product, monitoring and measurement are carried out:

- Before receipt of products from Contractors;
- Upon receipt of products on the site;
- In process of construction;
- At final stages of construction.

Before starting the receiving inspection, QA/QC requests correspondent certificates, technical paperwork, laboratory analysis, Manufacturer certificate of

origin, standards declaration and any other document appropriate and necessary for preliminary check of the materials based on which – Material Approval Certificates are issued;

Based on the nature of product/material to be inspected, the receiving inspection shall be performed by a CMC QC authority or by outsource Quality Inspector and/or Material Controller (if necessary) engaged to the process for the additional technical expertise.

Products will only be admitted when the appropriate inspections and tests, i.e. Third Party verification when requested, are completed and found in full correspondence with the standards set by the QMS & ITPs.

The Quality Control Coordinator, Mr. ..., will carry out the required in-process inspections and surveillances.

Control of Non-Conforming Product

Identification recording and segregation of Non conforming Product is a quality control activity exercised throughout the Project by CMC QA/QC in accordance with the Project QMS.

The proposed use by concession or repair of a non-conforming product shall be reported to Ras Al Khaima Investment Authority LLC for approval.

The rejected products shall be removed from construction site utilization points. The description of the non-conformity or details of the repair done shall be recorded for future reference. All the repaired and reworked products shall be re-inspected.

When non-conformity is detected after delivery or use of the relevant installation, the consequences for the present installation and for the future construction shall be reviewed and the necessary actions carried out by the Project Manager, Mr. ..., and the Quality Coordinator, Mr.

Analysis of Data

The following data generated by Sheraton Casino & Parking Project Management, engineering, procurement and, construction process owners shall be subject to analysis on monthly / quarterly basis (the schedule depends on the project terms and

are pre agreed with the Employer):

- results of audits;
- records of Client's satisfaction or dissatisfaction;
- Key Performance Indicator Analysis;
- compliance with the product requirements;
- characteristics and development of processes and products, including opportunity for preventive actions;
- Records regarding Contractors / Vendors;
- Root Cause Failures.

The Project Manager, Mr. ..., and the Project QA/QC Coordinator, Mr. ..., lead the review process. The results shall be presented during the Management review for determination of the suitability, effectiveness and adequacy of the QMS to the employer.

Improvement

Continual Improvement

The Project QA/QC Manager, Mr. ..., shall review and analyze the following elements and discuss in the project quality review meetings held monthly / quarterly in order to take actions for improvement of the effectiveness of the QMS.

- Project objectives;
- Internal and external audit results;
- Analysis of data;
- Corrective and preventive actions;
- Project Management review reports.
- Action Tracking Status
- Root Cause Failure Reports
- Client Satisfaction Analysis.

Corrective Action

Corrective actions will be implemented to reduce or eliminate the causes of identified non-conformity in order to prevent its recurrence in the following procedure:

- Review of nonconformities, including Ras Al Khaima Investment Authority LLC complaints for all processes executed;
- Determination of the causes of non-conformities and the appropriate corrective actions by the Process Owners;
- Implementation of the corrective action needed and recording of the results;
- Review of the corrective action taken by the QA/QC Coordinator, Mr. ...

The impact or importance of the problem encountered shall be considered during the evaluation of the corrective actions needed.

Refer project procedure "Non-conforming product, corrective and preventive action" for further details.

Preventive Action

The following steps are implemented for preventive actions to eliminate the causes of potential non-conformities to prevent occurrence.

- Determination by the Process Owners of potential non conformities and of their causes for all processes;
- Evaluation and determination of preventive actions by *Name of the Contractor* for the need for actions to be undertaken in order to avoid the occurrence;
- Implementation of preventive actions by the Process Owners;
- Review by the QA/QC Manager, Mr. ..., of the preventive action undertaken.

The impact or importance of the potential problem shall be considered during the determination of the preventive action needed.