

**Achievement of Market-Friendly Initiatives and Results Program
(AMIR 2.0 Program)**

Funded By U.S. Agency for International Development

Jordan E-Government Quality Management Plan

Final Report

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0 Document Control

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0.1 DOCUMENT HISTORY

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0.1	Draft	6 April 2002
0.2	Draft	23 April 2002

0.2 Changes From Last Issue

Version	Status	Reviewer	Date
0.1	Draft	Tariq Mahmood	23 April 2002
0.2	Update from review of v0.1		

0.3 Acknowledgements

N/A

0.4 Distribution List

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Reginald Miller	AMIR
Mahmoud Ali Khasawneh	MoICT

0.5 Referenced Documents

Number	Title	Reference	Note
	N/A		

0.6 Abbreviations

AMIR 2.0	Achievement of Market-Friendly Initiatives and Results Program
GOJ	Jordan E-Government Programme
MoICT	Ministry of Information, Technology and Communications (previously MoPC).
PMO	Programme Management Office
PO	Project Office
CCB	Change Control Board

0.6 Glossary

N/A

1 Introduction

Quality is conformance to requirements. When a client requests a new product, its requirements and specifications are first documented and agreed to by all parties. A quality product meets these specifications. Quality on this account means delivering products and services that meet Account's requirements and exceed the client's expectations.

Quality Management includes the processes required to validate that a project will satisfy the needs for which it was undertaken. Quality Management on the project will be accomplished through the execution of this plan. The Quality Team is responsible for carrying out the requirements of this plan under the review of the Project Manager. All tasks and activities described or implied in this plan will be tracked, assigned, and recorded in the project schedule.

Quality Assurance focuses on monitoring processes that contribute to the achievement of quality in deliverables. Quality Control denotes the verification of product quality through product testing and review. Within the scope of Project Management Methodologies, project quality representatives will focus primarily on quality control by conducting and participating in various types of management and team reviews, which will focus on work products, services, deliverables and documentation escalation to required management levels. The Project Managers perform process assurance audits.

This document outlines the Quality Plan for GOJ e-Government's projects. It describes Quality Management:

- Structure
- Responsibilities
- Procedures
- Processes

The procedures:

- Describe how project quality representatives will execute quality activities during the project life cycle
- Serves as a repository for all operating instructions, guides, and templates developed for use by the quality team
- Serves to inform Project Team members of quality activities that are to occur during the project life cycle review of the Quality Management Plan

The processes establish the required steps to:

- Ensure quality on the project including the correct application of processes, standards, and procedures
- Ensure the quality of work products produced

Execution of the Quality Management Plan facilitates the following:

- Conformance of project deliverables and work products to established contractual agreements, processes, plans, policies, standards and procedures
- Assurance that the project's deliverables and activities meet GOJ e-Government requirements
- Increased leadership visibility into the level of conformance of project work products, deliverables and processes to established plans, standards, and procedures
- Provision of a basis for scheduling and conducting product reviews and audits
- Identification of defects and corrective action as early in the project as possible, thereby facilitating product reliability

Upon initial review and approval, this Quality Management Plan will serve as the foundation for all quality activities on the GOJ e-Government programme/project. This document will be reviewed periodically by the Programme/Project Manager to ensure that its provisions reflect the most current GOJ e-Government requirements. It is managed and controlled through the Change Control procedure, product/service reviews (for updates to the plan), and document version control.

2 Project Quality Policy, Goals and Standards

This section contains the policy and goals that drive the approach to quality on the project, and also describe the standards that team members are expected to follow on this project.

2.1 Quality Policy

GOJ e-Government and PMO are committed to developing products and services that meet GOJ e-Government's requirements and are delivered on time and within budget.

It is the responsibility of each project team member to apprise the Programme/Project Manager whenever there is a question of compliance with standards or procedures. Quality is the responsibility of each person on the project. Whenever issues arise, it is critical that they are addressed immediately. Failure to do so may have a detrimental effect on all or part of the project.

2.2 Project Goals

The following are the goals for GOJ e-Government's projects based on the use and execution of Project Management Methodologies:

- Client requirements are met and expectations are exceeded
- Technical components are traceable back to requirements
- Defects, services and non-conformance issues are identified and addressed in a timely and effective manner such that overall project, scope, schedule, and costs are not impacted in a negative manner
- Project resources are used effectively and efficiently
- Communication of issues and concerns to the programme/project team and all affected groups and individuals is facilitated
- Rework effort is less than 10% of total development effort
- Project estimates are within 10% of actual financials

2.3 Project Standards

The Programme/Project Manager verifies that GOJ e-Government project procedures and standards are used in developing required project work products and deliverables. They are used as the baseline for product evaluation and as measures of project compliance.

All deliverable documents will be reviewed, as per GOJ Document Approval Process v0.1, for format, content, and technical errors prior to delivery to any associated project group. All deliverables will be reviewed prior to actual delivery.

2.3.1 Document Content and Format

The following sections describe the development and documentation standards for the project.

- The client name (“Jordan E-Government – Programme Management Office”) and the EDS logo are to be used in the standardised headers
- All documents are reviewed for grammar and spelling prior to submission for product review
- (Additional standards)

2.3.2 Industry, Client, and PMO Standards

- All business support documentation will be developed according to PMO standards and guidelines.
- Project Management processes, procedures, and templates maintained by the Programme Management Office will be used as the basis to create the project management process environment for the projects.
- The projects will adhere to contractual project-specific Project Management Methodology.
- The project will adhere to contractual or industry-specific standards, guidelines and methodologies.

3 Project Quality Organization

This section describes the organisational infrastructure components necessary to ensure that quality goals and objectives are met. These components are Roles and Responsibilities, Tools and Training.

3.1 Roles and Responsibilities

The Quality Manager reports to the PMO Programme/Project Manager. In the case where a project is small and it is not financially feasible to support a separate Quality Manager, the Programme/Project Manager assumes the roles and responsibilities of the Quality Manager.

The PMO will provide quality representatives that will operate in an independent manner to provide unbiased information to the project's leaders regarding the project team's products and processes. Quality activities will be independent within the context of strategic business goals and the business environment of the project. This independence provides the individuals performing the quality roles with the freedom to be objective when observing project activities.

Quality representatives objectively monitor and report on the application of methodology, policies, processes, procedures and standards that project personnel use to develop products, services and deliverables. Project quality representatives are responsible for ensuring that the standards and procedures established for the project do not violate GOJ e-Government or PMO's principles or guidelines. They also ensure that the standards and procedures are auditable and measurable. The PMO representative will periodically conduct audits of the project to ensure compliance to the established principles, guidelines, processes, and procedures.

For Jordan E-Government, Project Managers will be de-facto Quality Managers until someone is specifically nominated for this role.

3.1.1 Client

The Quality Manager works with the GOJ e-Government project manager to obtain and provide all the information required for contract performance, as well as to ensure delivered products fulfil the needs and expectations of the client.

3.1.2 Project Team

Quality-related roles and responsibilities are found in the *Project Roles and Responsibilities Matrix*. Quality roles and responsibilities should be periodically updated to reflect the project environment. Names may be assigned to the roles after the roles and responsibilities matrix is developed or updated, as desired.

3.2 Tools

Quality related templates have been created following Project Management. The templates used are maintained by the Programme Management Office.

3.3 Training

Quality assurance personnel will be trained in accordance with project procedures. The Programme Manager trains Project Managers in the project management processes, tools, and templates maintained by the PMO with their assistance. The Quality Manager trains the project team on applicable quality activities during team meetings. An overview presentation on quality will be included in the new member orientation. Each manager is responsible for assuring that all employees are trained on applicable processes.

4 Project Quality Activities

This section describes the type and frequency of quality activities that will take place within GOJ e-Government's project environment. In the scope of this Quality Plan, the term "review" is associated with the evaluation of both products and processes.

The Quality Manager works with project leadership and other project team members during the early stages of project planning to validate or establish plans, standards and procedures. This up-front, proactive approach to quality will facilitate project success and fall within the constraints of the project as defined by the GOJ e-Government PMO policies. On an ongoing basis, project quality personnel ensure that designated activities, processes, and products are monitored to ensure compliance with project goals, objectives and standards. Quality personnel work with other members of the GOJ e-Government project team to assist in establishing or updating plans, standards, and procedures, and by verifying that the Project Team complies with those plans, standards and procedures.

4.1 Process Reviews

The PMO will perform process reviews (audits). A process review is an independent evaluation of a project's activities to assess compliance to processes, standards, procedures, and the project plan.

The PMO will provide reports to the GOJ e-Government leadership to provide insight into the project's use of Project Management Methodologies. The project Quality Team's activities will also be reviewed by the PMO Quality Manager to ensure that all applicable standards, procedures, and plans are being followed, and the quality function is being performed effectively on the project.

When processes or activities are discovered that do not comply with applicable standards, procedures, tools, and plans, they are documented and tracked to closure. Based on the nature of the non-conformance, it may be necessary to escalate certain classes of non-compliance issues to the level of management required for resolution.

Some of the actions that may be taken are as follows:

- Require the faulty process be suspended until resolution of the problem
- Allow the process to continue, but require immediate corrective action through rework of the problem
- Continue using the process, but require consistent review of it to determine any trends.

In cases where Project Management processes or procedures must be modified, or new processes or procedures added, to meet the requirements of the project environment, quality personnel will work closely with the project team and the PMO to address the situations. Quality personnel will ensure that new processes or procedures are adequately documented (comply with existing standards) and facilitate project goals and objectives.

Appendix A shows the Quality Management Process Flow diagram.

4.2 Project Quality Activity Summary

The following project quality activities will be performed during the project:

- Modify the Quality Management Plan and procedures to address project environment requirements
- Participate in process, procedure and plan development and review early in the project life cycle
- Prepare or update review criteria for product reviews, phase exit reviews and other review activities
- Participate in In-Progress Reviews (based on the project environment)
- Identify and track defects and deviations through project reviews, and on an event-driven basis
- Identify, address, and escalate as needed non-compliance issues
- Provide quality-related status information to the Project Manager and the client as appropriate
- Analyse metrics to identify trends and areas for improvement

The Quality Manager participates in all project component progress reviews to ensure compliance with applicable procedures, standards, and plans and to verify readiness to proceed with the next phase of the project. The Quality Manager must ensure that all quality activities are included in the project schedule.

4.3 Product Reviews

A product review is an evaluation of work products or deliverables to ensure quality and to verify conformance to established plans, procedures, industry standards, and GOJ e-Government PMO requirements. The focus of the product review is on the product's compliance to specifications and consistent, accurate operation rather than the application of the process.

The Product Review Team is comprised of project peers, subject matter experts (SMEs), suppliers, and the Client, as appropriate.

When work products are ready for testing a product review is performed. Deviations from the processes and/or non-compliance to the standards are recorded in the product reviews. When project management deliverables or other functional work products are complete, the product review team, including a representative from the PMO, reviews the work product. All defects or deficiencies discovered will be recorded and tracked until resolved. Before implementation, a product review is again performed. A work product is not presented to the client until an action plan for resolution is in place to correct these defects or deficiencies.

Refer to Appendix B for Product Review Flow diagram.

The result of a product review is a determination of the "goodness" of a work product or deliverable (the degree to which the product conforms to standards and criteria and meets requirements.) An output of the product review will contain a variety of quality data and information. The review document includes:

- Defect information (by type, severity)
- Non-conformance issues
- Time required to conduct the product review
- Effort required to prepare for the product review
- Effort required for rework
- Summary product information
- (Additional Items)

4.4 Project Quality Status Reporting – Communication Management

Quality status information is collected and reported throughout the project life cycle. Quality-related status information that will be communicated to the GOJ e-Government leadership, and the e-Government project team includes, but is not limited to the following:

- Activities to-be-started, in-progress or completed during a particular reporting period
- Issues, milestones and deliverables status
- Defects and other non-conformance information

- Process improvement suggestions

4.5 Quality-Related Risk and Issue Management

Quality-related risks, issues, assumptions, and changes are addressed using established PMO processes, tools, and templates. Refer to Risk Management, Issue Management and Change Control Processes for information on these processes.

The Quality Manager identifies deviations and non-compliance issues through product reviews and observation. Reports are used to document and track anomalies, violations of procedures or standards, and potential problems. All conformance or other quality issues will be identified, assessed, and managed in accordance with the PMO Quality Procedures. The Programme Manager is informed of identified deviations. Quality issues are tracked in the Issue or Risk Tracking Log, as appropriate (see Issue Management Process and Risk Management Process). At any point in time, assumptions or issues may evolve into project risks. When this occurs they must be incorporated into the project Risk Management Plan.

The Quality Manager will work with the Project Managers (if these two roles are occupied by two separate individuals) or team leads of affected areas to resolve quality issues. If an acceptable solution cannot be agreed upon, the Quality Manager and person responsible for the affected area immediately escalate the issue to the Programme Manager. In most cases, the Programme Manager will determine what course of action to take to resolve the issue. If not, the issue will be escalated to the higher management of the ministry as appropriate. The purpose of quality issue escalation is to bring high risk or long-standing unresolved non-compliance tracking issues to the programme leadership attention.

Corrective actions will extend to any operation that could create or has created excessive losses that could result in the development or submission of non-conforming products to the client, or project that has deviated from approved procedures, standards, or processes.

4.6 Scope Management

The Scope Management Function aids the project manager in identifying requirements and deliverables. Scope Management involves ensuring that the project completes all the work, and only the work, required. Its primary focus is on controlling what is and what is not included in the project. Refer to PMO's Scope Management Plan for information on scope management.

The Quality Manager makes sure that the following products exists or are being used by the project team:

- Project Charter
- Scope Change Log
- Completed assessment of change requests
- Scope changes are reviewed and approved by the Change Control Board (CCB)
- Decisions of the CCB are communicated
- Work breakdown structure dictionary

4.7 Schedule Management

The Schedule Management Function aids the project manager in creating a project schedule that encompasses all deliverables and resources required within the project scope. The project manager evaluates the viability of the schedule, ensures that work is accomplished, validates that resources are expended as planned, and updates the schedule as the project progresses.

The Quality Manager makes sure that the following tasks are being performed on the project:

- Work Breakdown Structure includes all the work that is required to complete project requirements

- Project schedule is developed based on the Work Breakdown Structure and Resource Estimate Documentation.
- Dependencies, efforts and resources are identified and assigned to all work elements. Critical path analysis for the project schedule is completed to identify the tasks that are on the critical path.
- Time estimates and durations are tracked.

4.8 Financial and Contract Management

The Financial and Contract Management Functions aid the project manager in establishing the financial infrastructure to support the estimating, forecasting, budgeting, and tracking of project economics. The project manager identifies the legally binding requirements that involve the client, project team, and suppliers. The project manager monitors adherence to the requirements to ensure fairness and to reduce legal exposure. The project manager establishes commitments with the subcontractor on the work to be performed, coordinates the subcontractor's activities, and tracks and reviews the subcontractor's performance and results.

4.9 Resource Management

The Resource Management Function aids the project manager in creating the strategy and determining the procedures for timely, cost-effective acquisition, use, and reallocation of resources to provide quality products and services to the client. The project manager identifies and resource types, numbers and for how long. Project manager tracks and monitors the acquired resources against the requirements.

5 Project Metrics Plan

The purpose of metrics collection and analysis is to achieve project objectives, identify and track risks, satisfy constraints, and recognize issues or problems in a timely manner. Measurement is a key element of successful project management. Compiled metrics are derived from the primitive measurements. Areas requiring corrective or preventative action will be determined from the analysed metrics. Analysis of appropriate metrics facilitates project progress and performance.

Metrics also provide information regarding established processes and project activities that will assist in the identification of process improvement activities. The PMO, the client, and the project teams will use these recorded measurements to drive process improvement, refine work patterns, techniques, and formulas. This assists others to estimate future projects more effectively, reduce errors and rework, and facilitate the delivery of consistent, high-quality products to the client in a timely manner.

5.1 Project Metrics Goals and Objectives

The primary goal of measurement is to quantify the status of the project. Metrics are selected to effectively track and measure:

- Schedule compliance
- Actual vs. forecast costs and revenue
- Scope compliance and change
- Product and process compliance to requirements
- Issue identification and resolution
- Risk identification, quantification, and resolution

5.2 Project Metrics

The following list contains the metrics to be collected during the project:

- Overall project status – red, yellow, green, completed, cancelled, on hold
- Scheduled, current plan and actual project end date
- Phase and milestone schedule date, revised target date, actual date and status
- Planned and actual effort hours
- Planned and actual client billing amounts
- Number of new requirements and changes to existing requirements (requirements stability)
- Defects identified by type and severity
- Issues and Risks, by category (A, B, C, D) and status

5.3 Project Metrics Collection, Analysis and Reporting

Comparing actual versus planned measurements provides indicators of project performance and progress. Analysis and reporting intervals may be weekly or monthly, depending upon the measurement involved or the particular project environment. The summary-level activities for the collection, analysis, and reporting of measurements are included below:

- Collect data from measurement sources at designated intervals
- Consolidate measurement data
- Publish measurement data
- Conduct metrics analysis
- Produce metrics analysis findings
- Take corrective or preventative action, as indicated or appropriate.

6 Project Health Checks

Project health checks are the regularly conducted surveys on the health of the projects. The purpose of project health checks are to plan, schedule, conduct, and review projects for conformity to the quality standards that have been set by the PMO of the GOJ E-Government through the Quality Management Plan.

Project Health Check worksheet (Appendix C) is used to capture project health data through the interview/survey. The Project Health Check worksheet contains two worksheet tabs: 1) Health Check as of dd-mm-yy, and 2) Guidelines.

Health Check as of dd-mm-yy - the first worksheet tab, is used to capture project health as responses in the Response column. User fills in the Response and Comment columns during survey/interview. The responses could be any one of the following three options:

- Yes (Y) – The work product exists, documented, communicated and effectively used in meeting project requirements, objectives and goals.
- No (N) – The work product does not exist, or exist, but not used effectively in meeting project requirements, objectives and goals because of difficult circumstances.
- Not Applicable (N/A) – Not applicable for this project.

At the bottom of the worksheet is a table called Result Summary. The Result Summary table contains computed data based on the responses recorded in the Response column. The Response Summary table instantly shows the health of the project (level of compliance) by different knowledge areas in numerical as well as graphical form.

Guidelines - the second worksheet tab, contains useful information that are helpful in completing the survey.

6.1 Project Health Check Input and Output

Project plan and project workbook provide all the necessary input for a project health check.

Project health check worksheet and corrective action plan are the outputs of project health checks.

6.2 Project Health Check Frequency

Project health checks are done regularly, preferably quarterly, during the life of a project. If health checks for some reasons are not done regularly, it must be done once in the project life.

6.3 Project Health Check Process

The PMO schedules pre-meeting with project manager and project office (if one exists) to discuss timing and approach that will be used with all constituent projects as defined in the programme quality management plan.

Project manager ensures evidence of compliance for each project health check question is prepared prior to the health check session. It is preferable to have evidence available in the project workbook. Project Manager provides evidence of compliance as requested.

The health check results are reviewed with project manager prior to programme manager review session. The results are then reviewed with the programme manager and recorded in the PMO.

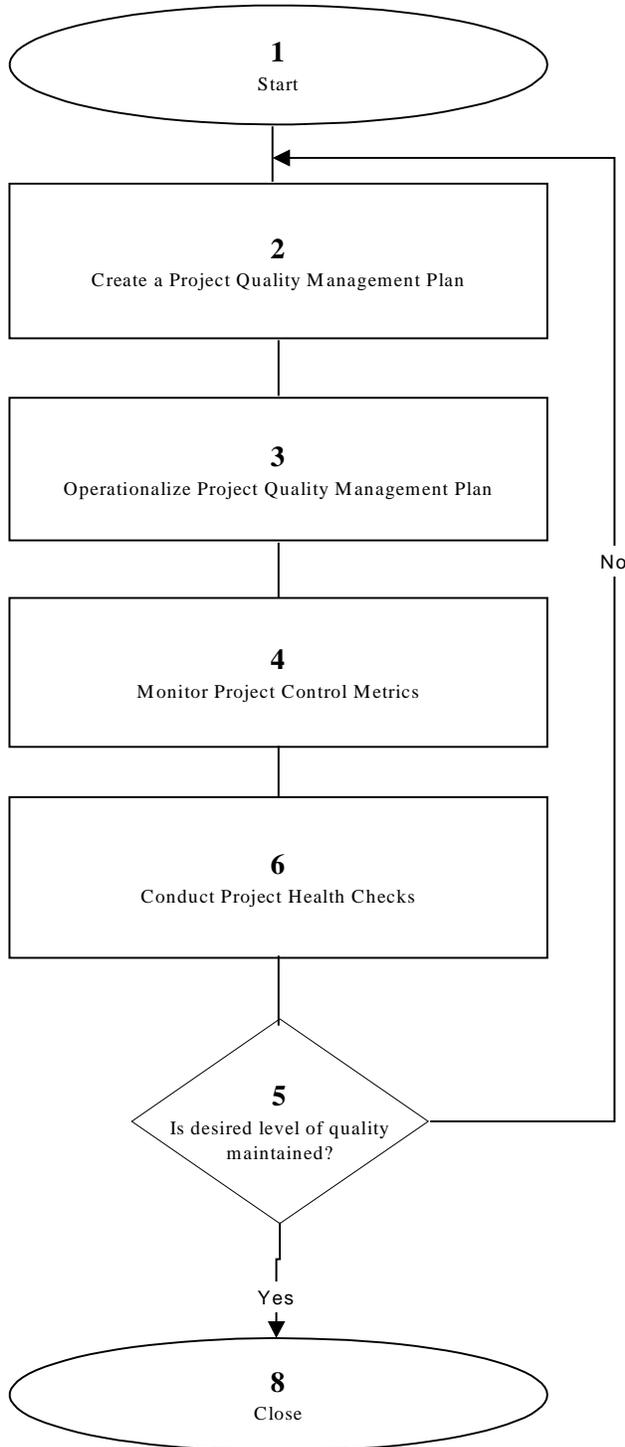
Project manager creates corrective action plan for project management knowledge areas identified as needing improvement within two weeks of health check completion.

Programme office analyses results of all project health checks and other relevant process indicators, and identifies trends in the application of project management. Change requests may be submitted to appropriate project management process group(s).

Refer to Appendix D for Project Health Check Process diagram.

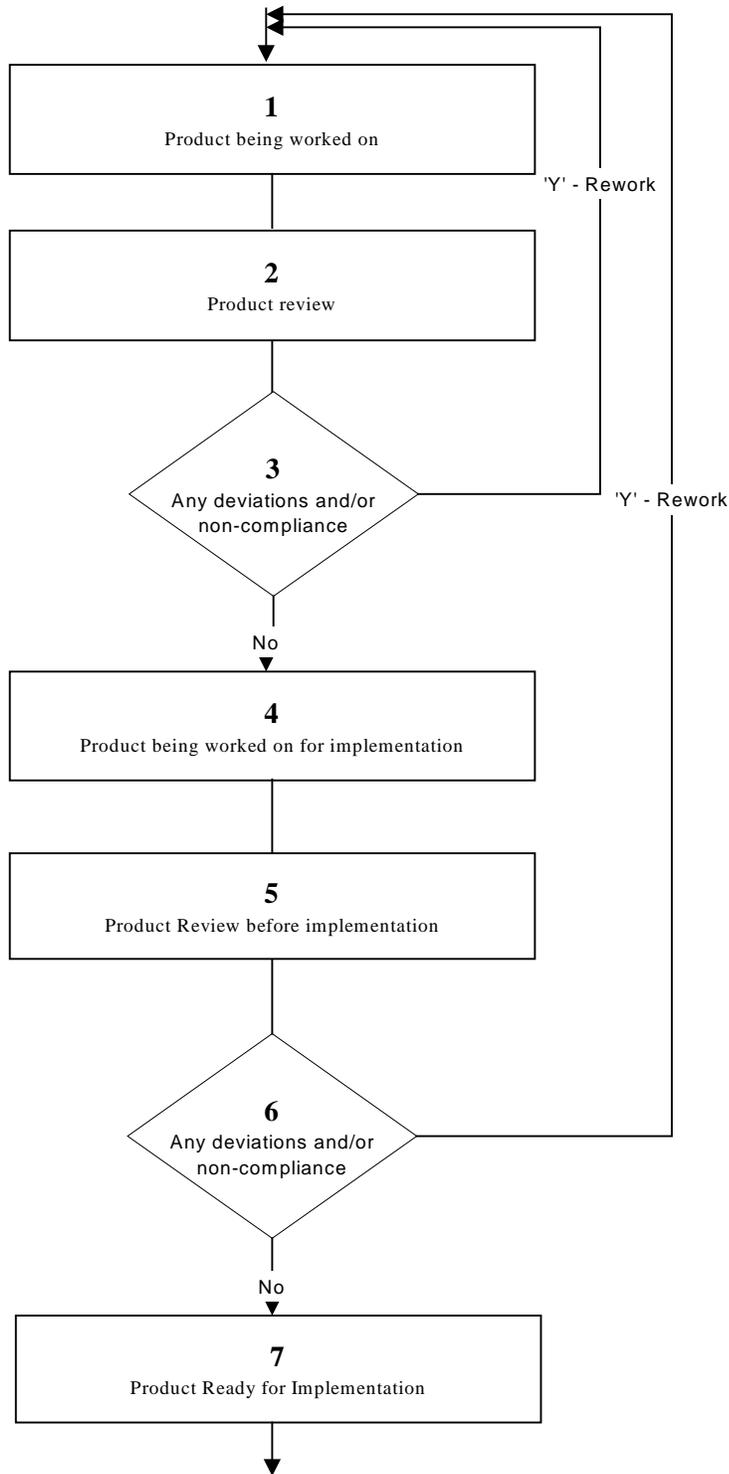
7 Appendix A – Quality Management Process Flow Diagram

Quality Management Process Flow



8 Appendix B – Product Review Flow Diagram

Product Review Flow Diagram



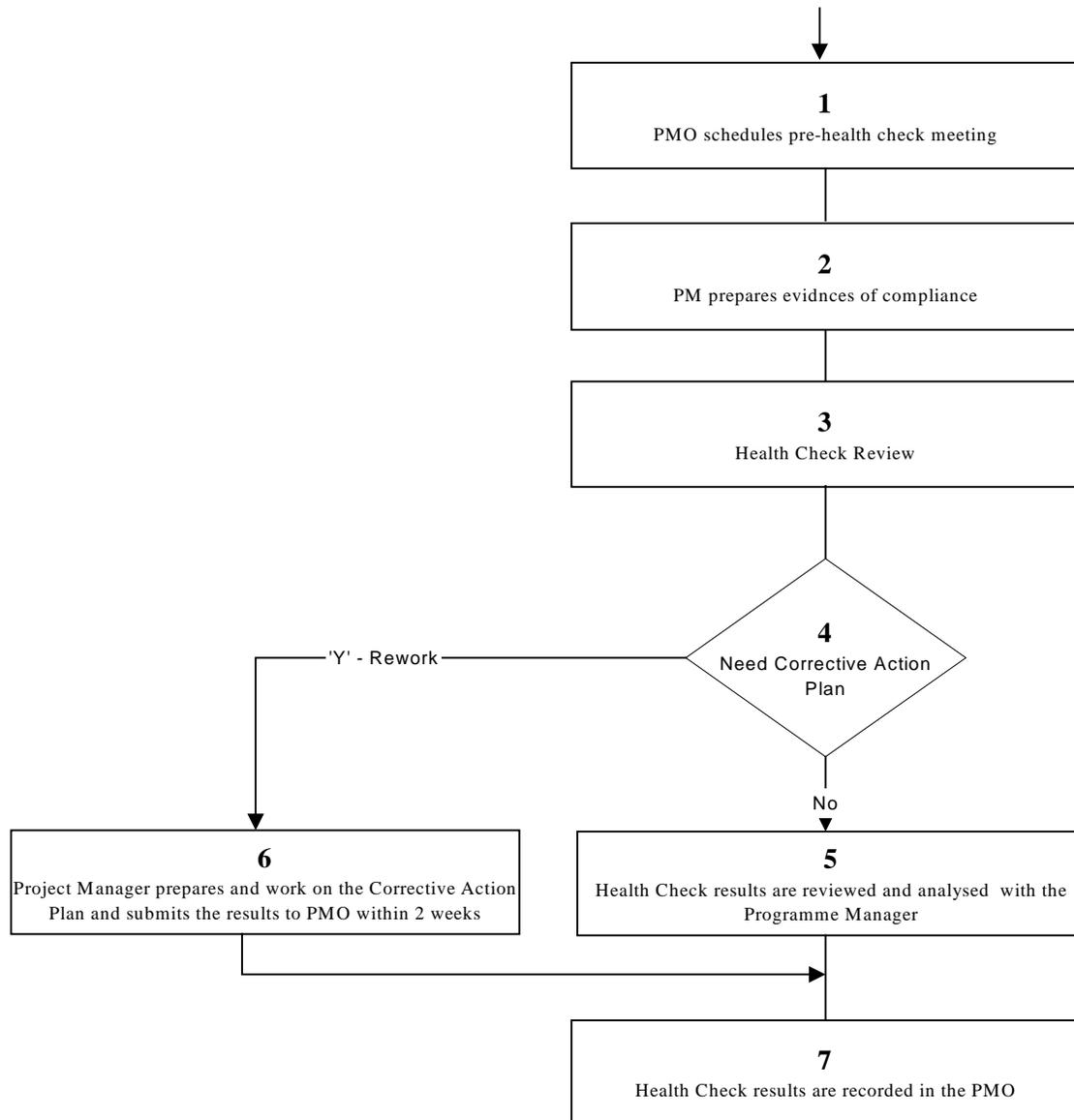
9 Appendix C – Project Health Check worksheet

Details of the Project Health Check worksheet are:

File name: GOJ Project Health Check.xls
File location: //Poweredge_nt/eds/pmo/tmpl/draft

10 Appendix D – Project Health Check Process Diagram

Project Health Check Process Diagram



11 Appendix E – Corrective Action Plan worksheet

Details of the Corrective Action Plan worksheet are:

File name: GOJ Corrective Action Plan.xls
File location: //Poweredge_nt/eds/pmo/tmpl/draft