Quality Control Plan

Centeva's Quality Control Plan includes the following core components:

- Meeting Performance Measures
- Enhancing Quality of Services and Deliverables
- Implementing and Enforcing Quality Assurance Measures
- Staff Responsibilities in Identifying Deficiencies
- Complementing the Government's Quality Assurance Surveillance Plan

Meeting Performance Measures

Centeva's diverse technical experience has shown us that performance management must be supported by measures and procedures that standardize requirements management, project planning, project tracking, and oversight. For this reason, Centeva establishes procedures for project planning, tracking, and oversight at the beginning of each engagement.

Among other things, these procedures address:

- *Requirements Management:* Requirements Management (RM) involves establishing and maintaining an agreement with the Government regarding project requirements. Such agreements cover both technical and non-technical requirements and form the basis for estimating, planning, performing, and tracking a project's activities throughout its lifecycle. After establishing baseline requirements, we follow industry-best practices for handling changes to requirements, metrics, and volatility.

- *Task Order Specific Project Plans:* Centeva will develop a Project Plan for each Task Order (TO). For each plan, we will provide an approach for managing issue resolution, assumptions, and risk mitigation. These plans will also define project staffing requirements, including roles and responsibilities. We use project plans to track project activities, communicate status, assess progress, and make revisions. Each Task Order (TO) will have a TO Manager who monitors project activities and reviews plans on a regular basis and provides revisions to the Project Manager as needed. We measure progress by comparing the actual size, effort, cost, and schedule to the plan as we complete deliverables or milestones. If and when we determine progress is insufficient, we will immediately take corrective actions.

- *Work Breakdown Structure:* Each Project Plan will include a Work Breakdown Structure (WBS) summarizing our technical approach. Each major element of the WBS will result in a deliverable or product. From experience, Centeva has found that a well-designed WBS provides necessary checkpoints for evaluating progress and identifying opportunities for success. Although each TO will have a uniquely tailored WBS, we use a standard lifecycle methodology across the contract.

- *Requirements Volatility:* The more volatile the requirements, the more risk to the project's schedule and resources. Centeva's TO Manager will monitor requirements volatility and regularly report this to the PM and COTR. By measuring and reporting requirements volatility, management can identify at-risk projects and take appropriate measures to reduce the risk.

- *Performance Metrics:* Centeva will capture performance metrics for each TO, along with the aggregated metrics for the whole contract, and analyze and leverage these to continually improve the TO Management Process. We will share lessons learned with the Government and all team members.

Enhancing Quality of Service and Deliverables

Centeva provides clients with the highest quality of products and services. Toward that end, Centeva develops and rigorously adheres to formal quality control standards. Centeva monitors and conforms to respective Quality Control Plans and does so for all deliverables. Moreover, the Quality Control Plans we develop and use ensure that deliverables satisfy contractual agreements, meet or exceed quality standards, and follow approved processes.

Centeva uses a Closed-Loop Corrective Activity Procedure that compares actual deliverable generation processes against predefined CENTEVA standards, as shown in figure 1.

Figure 1. Quality Control Loop. *Centeva's Quality Control procedure compares the actual deliverable generation process against Centeva standards.*
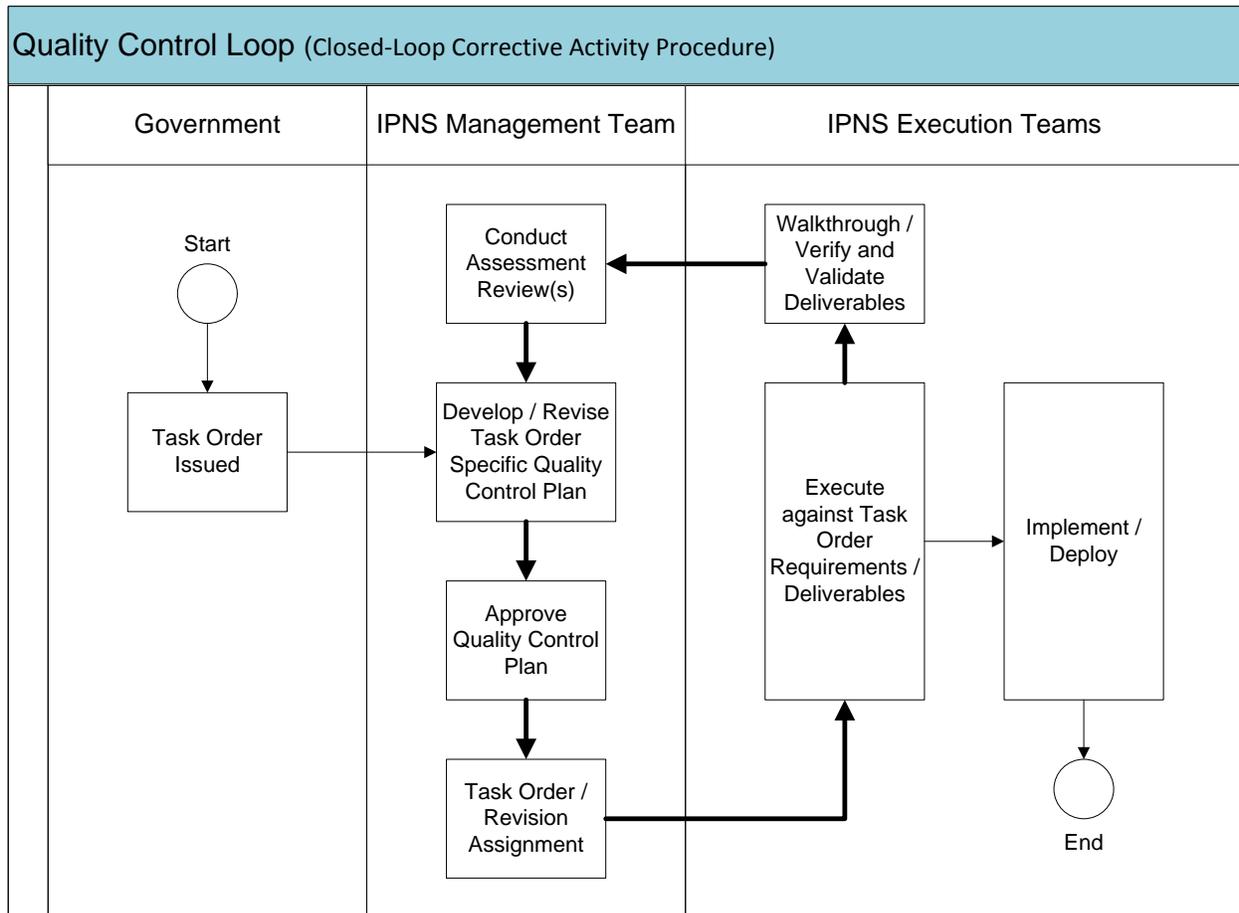
Through our procedures, Centeva ensures:

- Timely and accurate completion of deliverables
- Accurate and effective financial tracking through budget and hour management
- Effective execution of internal meetings with the project team and Government
- Effective Quality Assurance Reviews of draft and final deliverables
- Valuable monthly progress reports that accurately record the task description and number, work completed, progress made, problems addressed or identified, staffing plans, accumulated hours and costs to-date.

Implementing and Enforcing Quality Assurance Measures

Centeva has successfully implemented our schedule and cost monitoring approach on multiple contracts with the Federal Government and will apply it to this project as well. The PM and TO Manager develop task estimates based on the WBS that clearly define the activities we perform.

Staff Responsibilities in Identifying Deficiencies

The TO Manager will track each major task activity throughout its lifecycle. The TO Manager also determines the critical path and identifies by date each critical path checkpoint or deliverable. We review critical path dates in detail during task negotiations and all subsequent meetings. The PM closely monitors progress in meeting each task's critical path, allowing us to detect and correct any critical path issues early.

Complementing the Government's Quality Assurance Surveillance Plan

Centeva uses the requirements and details found in the Government's Quality Assurance Surveillance Plan to develop each TO-specific Quality Control Plan in order to establish control and assurance measures. We design these controls and measures to identify issues, mitigate risk, adhere to Government requirements, and produce desired results. We rigorously adhere to our Quality Control Plan and immediately take corrective action if we identify or anticipate a problem. Throughout the lifecycle of each TO, we capture lessons learned and use these to improve processes.

Our process improvement practices include the following major steps:

- Identify Improvement Opportunities
- Develop an Improvement Plan
- Implement the Improvements
- Monitor Improvements
- Standardize and Continue to Assess

We will also introduce less formal improvements on an ongoing basis, including minor changes or enhancements to procedure, processes, and standards. Table 1 describes our quality assurance procedures.

Table 1. Quality Assurance Procedures. *Centeva strictly follows a detailed quality assurance plan with each of our deliverables to ensure overall project success.*

Activity / Product	Quality Factors	QA/QC Methods Used	Participants
Deliverable Development			
Test Plan, Implementation Plan, and Analysis/Evaluation	Validity, Accuracy, Integrity, Testability, Maintainability	Walkthroughs, Quality Assessment Reviews	PM, TO Manager, Analysts, Government Representatives

Reports			
Briefings	Validity, Accuracy, Efficiency	Walkthroughs, Management Control Reviews	PM, TO Manager, Government Stakeholders
Activity / Product			
System or Work Flow Design Specifications	Validity, Accuracy, Maintainability	Walkthroughs, Quality Assessment Reviews	End-Users, Analysts, Designers, IVV
System or Work Flow Deliverable / Deployment	Validity, Accuracy, Efficiency	Formal Test Cycles	Testers, End-Users, Analysts, IVV
Management Oversight			
Walkthrough Reports	Maintainability	Management Control Reviews	PM
Work Plans	Validity, Accuracy	Management Control Reviews, Quality Assessment Reviews	PM, TO Manager
Status Reports	Maintainability	Management Control Reviews	PM, TO Manager
Application of Standards	Validity, Accuracy, Testability	Quality Assessment Reviews	PM, TO Manager