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U.S. DEPARTMENT OF ENERGY OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT OFFICE OF QUALITY ASSURANCE

AUDIT REPORT OF

WESTINGHOUSE

GOVERNMENT AND ENVIRONMENTAL SERVICES COMPANY (GESCO) SAN JOSE, CALIFORNIA

AUDIT NO. OQA-SA-96-026

SEPTEMBER 17 THROUGH SEPTEMBER 19, 1996

Prepared by:

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Audit Team Leader Headquarters QA Division Date: 10/3/96

Approved by:

Donald G. Horton

Director

Office of Quality Assurance

Date: 10/7/96

1.0 EXECUTIVE SUMMARY

As a result of Quality Assurance (QA) Supplier Audit OQA-SA-96-026, the audit team determined that Westinghouse Government and Environmental Services Company (referred to as GESCO) is satisfactorily implementing its QA Program for the limited scope reviewed at the San Jose, California (CA) office. The purpose of the subject audit was to assess implementation of GESCO's QA Program relative to Program Elements 1, 2, 3, and 11. Due to the results of this audit, the audit team will recommend GESCO (San Jose, CA Office) for placement on OCRWM's Qualified Suppliers List (QSL) as a qualified supplier with some exceptions noted, due to a lack of activity (LOA) in various areas reviewed.

In summary, of the four QA Program Elements that are appropriate to GESCO's responsibilities, three have been found to be implemented satisfactorily, with Element 11 (Test Control) not being implemented at this time. Additionally, certain aspects relative to Element 3 (Design Control) could not be verified due to a LOA.

The audit team identified two deficiencies. The deficiencies are described in Section 5.5 of this report. Also, there was one recommendation presented for consideration by GESCO management which is described in Section 6.0 of this report.

2.0 SCOPE

The supplier audit was conducted to evaluate the adequacy and effectiveness of GESCO's implementation of their QA Program. Also, specifically in relation to Element 3 (Design Control), the audit team developed some "performance based" checklist questions to ascertain if the desired results had been achieved relative to Phase 1 activities conducted by GESCO. The QA Program Elements and requirements evaluated during the audit, in accordance with the approved audit plan, are as follows:

1.0	Organization
2.0	Quality Assurance Program
3.0	Design Control
11.0	Test Control

The following QA Program Elements were not reviewed during the audit because they have been deemed outside GESCO's scope of responsibility or were previously reviewed during audit OQA-SA-96-001.

4.0	Procurement Document Control**
5.0	Implementing Documents**
6.0	Document Control**
7.0	Control of Purchased Items and Services**
8.0	Identification and Control of Items*
9.0	Control of Special Processes*
10.0	Inspection*
12.0	Control of Measuring and Test Equipment*
13.0	Handling, Storage, and Shipping*
14.0	Inspection, Test, and Operating Status*
15.0	Nonconformánces**
16.0	Corrective Action**
17.0	QA Records**
18.0	Audits**
NOTE:	*Not Applicable **Audit OQA-SA-96-00

Requirements were taken from the GESCO QA Plan, the SEG Quality Management System Manual, the GESCO Engineering Procedures Manual, the Design Procurement Specifications, and the Contract Statement of Work.

3.0 AUDIT TEAM AND OBSERVERS

The following is a list of audit team members, their assigned areas of responsibility, and observers:

TITLE/ORGANIZATION	QA PROGRAM ELEMENT		
Audit Team Leader/QATSS	All Elements		
Auditor/QATSS	Elements 1,2,3		
Auditor/QATSS	Elements 2,3,11		
Observer/TESS	NA		
Observer/TESS	NA .		
	Audit Team Leader/QATSS Auditor/QATSS Auditor/QATSS Observer/TESS		

4.0 AUDIT MEETINGS AND PERSONNEL CONTACTED

A preaudit meeting was held at the GESCO offices in San Jose, CA on September 17, 1996. A debriefing status meeting was held with GESCO management and staff to discuss issues and potential deficiencies on September 18, 1996 and September 19, 1996. GESCO Project Management participated in these meetings as was requested by the audit team. The audit concluded with a postaudit meeting held at GESCO's offices on September 19, 1996. Personnel contacted during the audit are listed in Attachment 1. The list also identifies those who attended the preaudit and postaudit meetings.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Effectiveness

The audit team concluded that GESCO is adequately and effectively implementing its QA Program for the limited scope reviewed. Also, the results of the "performance based" aspects that were reviewed, appeared to indicate that Phase 1 activities in the area of Design Control were acceptable.

5.2 Stop Work or Immediate Corrective Actions Taken

There were no Stop Work Orders or immediate corrective action measures necessary.

5.3 OA Program Audit Activities

A summary table of audit results is provided in Attachment 2. The details of the audit evaluation, along with the objective evidence reviewed, are contained within the audit checklists. The checklists are kept and maintained as QA Records.

5.4 <u>Technical Activities</u>

Because the audit was conducted to evaluate programmatic adequacy and implementation by GESCO of its QA Program, the audit team did not evaluate any technical activities.

5.5 Summary of Deficiencies

5.5.1 Corrective Action

As a result of the audit, two deficiency documents were issued.

Deficiency Report HO-96-D-011

The audit team found during the review of requirements relevant to GESCO procedure SEG/QA-3.1, Rev.3, Engineering Design Control, and procedure ENG-P-00-006, Rev. 0, Preparation of Design Analysis Reports (DAR), that the computer program platform on which computer runs were made was not identified in the following sample of DARs:

DAR 4000.12.1.3, 21 MPC Basket Assembly Structural Analysis for Transportation Conditions, Rev. 1, and

DAR 4000.12.1.2, 21 MPC Basket Assembly Structural Analysis for On Site Storage Conditions, Rev. 0.

Also, for the same DARs it was found that the computer program verification documentation was not properly identified. The DARs contained computer runs performed on one platform for ANSYS 5.1 and on another platform for ANSYS 5.2. The runs for ANSYS 5.1 were traceable to the required verification documentation, but the runs for ANSYS 5.2 were not traceable to the verification documentation.

Deficiency Report HO-96-D-012

The audit team found during the review of requirements relevant to GESCO procedure ENG-P-00-006, *Preparation of Design Analysis Reports*, that GESCO was not identifying DARs as "preliminary" when the DAR contained unverified assumptions, data, or design inputs, as is required by the procedure. Additionally, no objective evidence was available to display that GESCO has a system or process for the tracking, statusing, and closure of unverified assumptions, data, or design inputs.

5.5.2 <u>Deficiencies Corrected During the Audit</u>

Deficiencies that are considered isolated in nature and only require remedial action may be corrected during the audit. The audit did not have any deficiencies that were corrected during the time frame of the audit.

6.0 RECOMMENDATIONS

The following recommendation resulted from the audit and is presented for consideration by GESCO management:

1. GESCO audit 96-02 (G) was conducted July 17-19, 1996 at the San Jose Office. This particular audit identified that there were "many" instances of noncompliance to procedural requirements found during the audit (reference GESCO finding 96-02 (G)-02). Once again it appears, that although GESCO has a documented/approved 10CFR Part 71 QA Program, weaknesses exist in the implementation of the program. This appears to be a repetitive condition (reference audit HQ-SA-95-001), in that GESCO only implemented their QA Program following the conduct of an audit and the identification of numerous problems. The audit team strongly recommends that serious attention be paid to implementation of the QA Program for the next phase (2B) by GESCO Management. Consideration should be focused on the fact that the SEG QA Program will no longer be utilized by GESCO. Implementation of a new Part 71 QA Program, coupled with new locations and personnel, will present some new challenges.

7.0 LIST OF ATTACHMENTS

Attachment 1: Personnel Contacted During the Audit

Attachment 2: Summary Table of Audit Results

ATTACHMENT 1 Personnel Contacted During the Audit

	MEETINGS					
NAME	ORG	SANIZATION/TITLE	CONTACT	PRE	POST	
C. Betts QATSS Auditor			х	х	х	
J. George	QATSS	Auditor	x	х	×	
R. Peck	QATSS	Audit Team Leader	х	х	х	
D. Boyt	м&о	Observer	x	х	х	
J. Cassidy	M&O	Observer	x	х	х	
W. Menzel	GESCO	QA:Manager	x	х	х	
R. Quinn	GESCO	Certification & Design Lead	х	х	×	
R. Lehnert	GESCO	Chief Design Engineer	x	_ x	х	
S. Sisley	GESCO	Principal Engineer	x	х	х	
K. Hoedeman	GESCO	Deputy Project Manager	x	x	х	
L. Suckow	GESCO	Administrative Assistant	x	x	x	
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AUDIT OQA-SA-96-026 DETAIL SUMMARY							
ELEM	DOCUMENTS REVIEWED	CARs	CDA	PR/DR	RECOM	COMPLY	OVERALL
	QA PLAN					SAT	
1	QUALITY MANAGEMENT SYSTEM MANUAL					SAT	SAT
	QA PLAN				1	SAT	
2	QUALITY MANAGEMENT SYSTEM MANUAL					SAT _	SAT
Si	SEG/QA-2.1					SAT	
	GESCO PROCEDURE INTERFACE DOCUMENT					SAT	
	ENG-P-00-001					SAT	
	ENG-P-00-002					SAT	,
3	ENG-P-00-004					LOA	SAT
	ENG-P-00-005					LOA	
,	ENG-P-00-006			HQ-96-D-011 & -012		SAT	

Attachment 2 Summary Table of Audit Results

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ELEM	DOCUMENTS REVIEWED	CARs	CDA	PR/DR	RECOM	COMPLY	OVERALL
	ENG-P-00-007		<u> </u>			LOA	
	SEG/QA-3.1			HQ-96-D-011		SAT	
11	ENG-P-00-008					LOA	LOA
	SEG/QA-11.1		-			LOA	
TOTAL		0	0	2	1	SAT	SAT

CARs Corrective Action Requests
CDA Corrected During Audit
PR/DR Performance/Deficiency Reports
RECOMMEND Recommendations
COMPLY ... Procedures Implemented
OVERALL ... Summary of Element
SAT Satisfactory
LOA ... Lack of Activity