

QUALITY ASSURANCE PLAN
FOR
USE, MAINTNEANCE AND REPAIR OF SHIPPING PACKAGES
HANDLED BY
ALPHA-OMEGA SERVICES INC.
16220 GUNDRY AVENUE
PARAMOUNT, CALIFORNIA

990130

7909210474

13942

QUALITY ASSURANCE PLAN

REVISION NO.	ISSUED BY	DATE	APPROVED BY	DATE
<u>1</u>	<u>WJB</u>	<u>8/27/79</u>	<u><i>William J. Bristow</i></u> Pres.	<u>8/27/79</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

TABLE OF CONTENTS

- 1.0 Introduction
- 2.0 Organization
- 3.0 Quality Assurance Program
- 4.0 Document Control
- 5.0 Handling, Storage, and Shipping
- 6.0 Inspection, Test, and Operating Status
- 7.0 Quality Assurance Records
- 8.0 Audits

9901324

ISSUED BY	APPROVED BY	DATE ISSUED 6/15/78	SUPPERSEDES ISSUE DATED	REV. NO. 0	PAGE i
-----------	-------------	------------------------	----------------------------	---------------	-----------

ALPHA-OMEGA SERVICES, INC.

QUALITY ASSURANCE PLAN FOR SHIPPING PACKAGES

1.0 Introduction

1.1 Purpose

Alpha-Omega Services, Incorporated is currently authorized as a user of transport packages for radioactive materials in "special form" as defined in 10CRF71 paragraph 71.4 (o) and authorized by NRC Certificate Number 5979. The purpose of this Quality Assurance Plan, described in the following sections, is to assure that the quality objectives of Appendix E, 10CRF71 for the use, maintenance and repair of shipping containers are met.

1.2 Scope

"Special form radioactive material", if released from the transport package, is more of a potential hazard from direct radiation than from either radiotoxicity or contamination potential. This quality assurance program will address those safety related features of the transport package important

990135

ISSUED BY	APPROVED BY	DATE ISSUED	SUPPERSEDES ISSUE DATED	REV. NO.	PAGE
		6/15/78		0	1-1

to confinement of the material and its associated radiation.
The program will discuss actions necessary to assure that
the safety related features will perform as required through-
out the useful service life of the transport package.

1.3 Authority

Alpha-Omega Services, Inc. shall establish and maintain
a Quality Assurance Program intended to insure that those
features of all shipping packages utilized by Alpha-Omega
Services, Inc. shall perform as required by the conditions
set forth in the operating license and safety analysis
report.

9901346

ISSUED BY	APPROVED BY	DATE ISSUED	SUPPERSEDES ISSUE DATED	REV. NO.	PAGE
		6/15/78		0	1-2

2.0 Organization and Responsibilities

2.1 Alpha-Omega Services, Inc. is responsible for the establishment and maintenance of a Quality Assurance program covering the organizations activities pertaining to the use, maintenance and repair of all shipping packages containing radioactive materials, for which Alpha-Omega Services, Inc, is a registered user.

2.2 An organization chart of Alpha-Omega Services, Inc. is shown on Figure 2-1 showing these positions within the organization having primary Quality Assurance responsibilities described in subsequent portions of this plan.

2.3 The responsibilities related to establishment and maintenance of the Quality Assurance program are shown in Figure 2-2 for each of the positions within the organization shown in Figure 2-1.

2.3.1 The President of Alpha-Omega Services, Inc. shall have the following responsibilities related to the establishment and maintenance of the Quality Assurance Plan.

9901357

ISSUED BY	APPROVED BY	DATE ISSUED 6/15/78	SUPPERSEDES ISSUE DATED	REV. NO. 0	PAGE 2-1
-----------	-------------	------------------------	----------------------------	---------------	-------------

- Initiate and approve the Quality Assurance Plan.
- Provide for an annual review and assessment of the effectiveness of the Quality Assurance Plan.
- Approves all changes to documents and specifications that are included in the Quality Assurance Plan.

2.3.2 The Quality Assurance Manager shall have the following responsibilities in relationship to the Quality Assurance Plan.

- Develop and maintain the Quality Assurance Plan.
- Responsible to insure that an annual review and assessment of the effectiveness of the Quality Assurance Plan is performed.
- Insures that a proper training program is included as part of the operations of the organization.

990138

ISSUED BY	APPROVED BY	DATE ISSUED 6/15/78	SUPPERSEDES ISSUE DATED	REV. NO. 0	PAGE 2-2
-----------	-------------	------------------------	----------------------------	---------------	-------------

- Apprise the President of the effectiveness of the Quality Assurance Plan.

2.3.3 The General Manager shall have the following responsibilities in relationship the the Quality Assurance Plan.

- shall be responsible for performing those Quality Assurance functions relating to certification testing and shipping.
- shall also be responsible for initiation and maintenance of operating procedures as required by the Quality Assurance Plan.

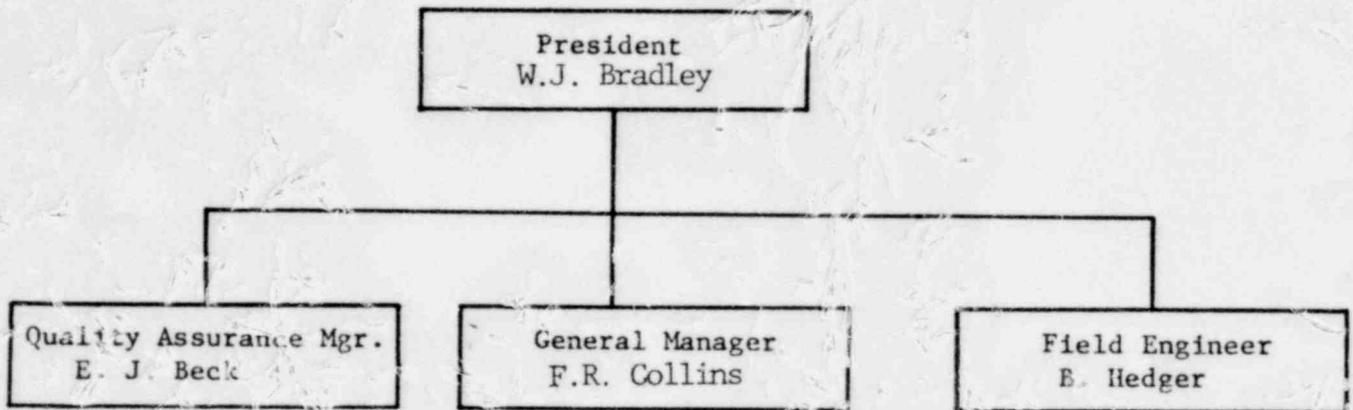
2.3.4 The Field Engineer shall be responsible for maintaining those records relating to shipping as required by the Quality Assurance Plan.

990137

ISSUED BY	APPROVED BY	DATE ISSUED 6/15/78	SUPPERSEDES ISSUE DATED	REV. NO. 0	PAGE 2-3
-----------	-------------	------------------------	----------------------------	---------------	-------------

FIGURE 2-1

ALPHA-OMEGA SERVICES INC. ORGANIZATION CHART



140
990138

ISSUED BY W.J.B.	APPROVED BY W.J.B.	DATE ISSUED 8/27/79	SUPPERSEDES ISSUE DATED 6/15/78	REV. NO. 1	PAGE 2-4
---------------------	-----------------------	------------------------	------------------------------------	---------------	-------------

FIGURE 2-2

QUALITY ASSURANCE RESPONSIBILITY MATRIX

QA FUNCTION	PRESIDENT	QA MANAGER	GENERAL MANAGER	FIELD ENGINEER	INDEPENDANT CONSULTANT
QA PLAN	1, 2	3			
TRAINING		1, 2, 3			
CERTIFICATION		2	3		
TESTING		1, 2	3		
DOCUMENT CHANGE	1	1, 2	2, 3		
SHIPPING			2, 3	2, 3	
SPECIFICATIONS	1	1, 2			
1) AUDITS	1, 2, 3	3	3	3	3

KEY: 1 - APPROVE
 2 - INITIATE
 3 - PERFORM

141
 990 ~~138~~

ISSUED BY W.J.B.	APPROVED BY W.J.B.	DATE ISSUED 8/27/79	SUPPERSEDES ISSUE DATED 6/15/78	REV. NO. 1	PAGE 2-5
---------------------	-----------------------	------------------------	------------------------------------	---------------	-------------

3.0 Quality Assurance Program

3.1 The Quality Assurance program will be established and implemented by Alpha-Omega Services, Inc. according to the organization described in Section 2.0. This program shall emphasize control over those features of the shipping packages used by Alpha-Omega Services, Inc. which perform a safety related function for the package. To insure that this control is provided, the Quality Assurance program shall be executed in accordance with those program requirements described in the following sections of this Plan. All Quality Assurance functions shall be initiated by qualified personnel.

3.2 Revisions to the Quality Assurance Plan shall be documented by means of the revision sheet showing the latest revision number. This number is utilized to identify changes within the text of the Plan. Revisions to the Plan shall be approved by the President, Alpha-Omega Services, Inc.; shall be performed by the Manager, Quality Assurance.

1) 3.3 This Quality Assurance Plan will ensure that all defined Q.C. procedures, engineering procedures, and specific provisions of the package design approval are satisfied.

142

990.40

ISSUED BY W.J.B.	APPROVED BY W.J.B.	DATE ISSUED 8/27/79	SUPPERSEDES ISSUE DATED 6/15/78	REV. NO. 1	PAGE 3-1
---------------------	-----------------------	------------------------	------------------------------------	---------------	-------------

1) 3.4 An indoctrination and training program will be established such that:

- Personnel responsible for performing quality-related functions are instructed as to the purpose, scope, and implementation of the Quality Assurance procedures and instructions.
- Personnel performing quality-affecting activities are trained and qualified in the principles and techniques of the activity being performed.
- The scope, the objectives, and the method of implementing the indoctrination and training program are documented.
- Proficiency of personnel performing quality-affecting activities is maintained by retraining, reexamining, and/or recertification.

99014B

ISSUED BY W.J.B.	APPROVED BY W.J.B.	DATE ISSUED 8/27/79	SUPPERSEDES ISSUE DATED 6/15/78	REV. NO. 1	PAGE 3.2
---------------------	-----------------------	------------------------	------------------------------------	---------------	-------------

4.0 Document Control

4.1 An operating procedure will be developed which defines the documents that must be established and maintained as part of the Quality Assurance record system that pertain to each shipping package used by Alpha-Omega Services, Inc. The General Manager is responsible to develop this procedure. Documents covered by this procedure includes users permit, certificate of compliance, safety analysis, and applicable drawings, and the responsibility for maintenance of these records.

1) 4.2 A procedure will be developed describing the format for documenting changes to any of the Quality Assurance records described above. The procedure shall include organizational responsibilities for making and documenting changes and for approving changes. The Quality Assurance Manager shall insure that all Quality Assurance functions are conducted in accordance with the latest applicable changes to these documents.

4.3 The procedures for document control shall be developed by the Quality Assurance Manager and approved by the President.

9901424

ISSUED BY W.J.B.	APPROVED BY W.J.B.	DATE ISSUED 8/27/79	SUPPERSEDES ISSUE DATED 6/15/78	REV. NO. 1.	PAGE 4-1
---------------------	-----------------------	------------------------	------------------------------------	----------------	-------------

5.0 Handling, Storage and Shipping

5.1 All operations at Alpha-Omega Services, Inc. involving the transport packages shall be in accordance with safety limits of the Certificate of Compliance. In addition, these operations shall also comply with applicable requirements of the Code of Federal Regulations.

5.2 Inspections, tests and surveys will be performed to insure that the conditions of the package satisfy all Certificate of Compliance requirements and applicable regulations. Results of these actions shall be properly documented. All documentation pertaining to radioactive source verification and packaging shall be completed prior to shipping.

1) 5.3 Each individual with responsibilities involving the handling, storage, and operations shall be instructed on procedures that include radiation training and physical handling of packaging to insure that safety features of the packages are not compromised.

1) 5.4 The Field Engineer shall be responsible to insure that all required tests, certifications, acceptances, and final inspections have been completed and properly documented prior to shipping the package.

990 145

ISSUED BY W.J.B.	APPROVED BY W.J.B.	DATE ISSUED 8/27/79	SUPPERSEDES ISSUE DATED 6/15/78	REV. NO. 1	PAGE 5-1
---------------------	-----------------------	------------------------	------------------------------------	---------------	-------------

The General Manager is responsible to insure that operating procedures are in place for handling, storage and shipping of transport packages.

The General Manager is responsible for operator training and instruction.

The Quality Assurance Manager is responsible to verify operator training and instruction.

146
990~~43~~

ISSUED BY	APPROVED BY	DATE ISSUED	SUPPERSEDES ISSUE DATED	REV. NO.	PAGE
		6/15/78		0	5-2

6.0 Inspection, Test, and Operating Status

6.1 An operating procedure shall be developed to describe inspection, testing, and general condition of the transport package for those features of the package important to safety. These procedures will include:

- Condition of outer packaging - cracks, deformation, wear, breakage, etc.
- Compliance with package license description - proper materials of construction; dimensions as described; closure device(s) as described.
- Operability - condition of seals; operability of safety valves, operability of closure devices.
- Contamination surveys and decontamination.
- Testing, as required.
- Reporting - a tag procedure will be established to indicate the status of a package. This procedure will also describe methods of reporting results of inspections or tests.
- Maintenance - Action, in response to defects identified during inspections, will be documented and maintained.

6.2 A tag procedure will be used to indicate the status of each container. A log will be maintained in conjunction with the

990 147
~~990144~~

ISSUED BY	APPROVED BY	DATE ISSUED 6/15/78	SUPPERSEDES ISSUE DATED	REV. NO. 0	PAGE 6-1
-----------	-------------	------------------------	----------------------------	---------------	-------------

tag for each package.

6.3 Items of nonconformance identified by the test or inspection will be indicated on the nonconforming item using the tag procedure and by entry into the inspection log. Copies of the nonconformance report will be forwarded to the General Manager for action. Records of action will be maintained as part of the Quality Assurance records systems.

1) 6.4 Responsibilities - Inspection and testing will be conducted by the operating component. The inspection, test, and maintenance reports will be prepared and maintained by operations. The General Manager shall ensure that these functions are performed.

990148

ISSUED BY W.J.B.	APPROVED BY W.J.B.	DATE ISSUED 8/27/78	SUPPERSEDES ISSUE DATED 6/15/78	REV. NO. 1	PAGE 6-2
---------------------	-----------------------	------------------------	------------------------------------	---------------	-------------

7.0 Quality Assurance Records

7.1 The records and documents pertaining to the licensing, use, and repaired shall be maintained as part of the Quality Assurance Records system. These records shall include operating logs, licensing documents, audit reports, and operating procedures.

7.1.1 Operating Logs

The following operating logs shall be included as part of the records system:

- Shipping and receiving documents
- Radiation survey reports
- Status inspection reports
- Maintenance and Repair reports
- Testing

1)

Each of these logs shall be maintained by the responsible operating component and shall be available for inspection.

7.1.2 License Documents

All documents pertaining to the licensing of the package

149
990146

ISSUED BY W.J.B.	APPROVED BY W.J.B.	DATE ISSUED 8/27/79	SUPPERSEDES ISSUE DATED 6/15/78	REV. NO. 1	PAGE 7-1
---------------------	-----------------------	------------------------	------------------------------------	---------------	-------------

shall be maintained in the central Quality Assurance records file. These records are the responsibility of the Quality Assurance Manager. These documents shall include:

- Users permit
- Copy of Certificate of Compliance, or equivalent
- Copy of Safety Analysis Report
- Verification of Manufacturer's QA program for
for fabrication, where applicable
- Purchase inspection report and other purchase
documents
- Change notices on packages
- Drawing and references

1)

7.1.3 Operating Procedures

Operating procedures, developed as described in Section 5.0 and 6.0 will be maintained as part of the Quality Assurance records system. A set of procedures will be available to each operating component as well as the Quality Assurance Manager. These procedures shall be available for audit and inspection.

150
990~~47~~

ISSUED BY W.J.B.	APPROVED BY W.J.B.	DATE ISSUED 8/27/79	SUPPERSEDES ISSUE DATED 6/15/78	REV. NO. 1	PAGE 7-2
---------------------	-----------------------	------------------------	------------------------------------	---------------	-------------

7.1.4 Miscellaneous Documents

- 1)
 - Personnel resumes, training, and qualifications shall be maintained for each individual having Quality Assurance responsibilities, as described in Section 2.0. A copy of these records shall be maintained in the central Quality Assurance file. These records shall be available for inspection to insure the qualifications of key individuals described in Section 2.0 are satisfied.
 - Audit results.

- 1) 7.2 An operating procedure will be provided to describe those records required by the Quality Assurance plan, and the responsibility for and location of those records. The procedure will provide for a systematic history of each shipping package and will be maintained for the useful life of that package. The records will be identifiable and retrievable. A list of these records, with their storage location, will be maintained by the General Manager.

151
990148

ISSUED BY W.J.B.	APPROVED BY W.J.B.	DATE ISSUED 8/27/79	SUPPERSEDES ISSUE DATED 6/15/78	REV. NO. 1	PAGE 7-3
---------------------	-----------------------	------------------------	------------------------------------	---------------	-------------

8.0 Audits

- 1) 8.1 An audit shall be performed of the Quality Assurance program annually in accordance with preestablished written procedures or check lists and will be performed by trained personnel not having direct responsibility in the areas being audited. The audit will include, but not be limited to, inspection of shipping documents, radiation survey records, container inspection or status records, and license change documentation.
- 1) 8.2 A written report of the Quality Assurance audit shall be prepared and issued to the President of Alpha-Omega Services, Inc. This report shall include deficiencies in the program and/or deviations from the established plan. The result of the audit will be distributed by the President to the responsible individual(s) for evaluation. Audit findings requiring action will be addressed and those corrective actions will be documented.
- 8.3 The Quality Assurance Manager shall maintain, as part of the Quality Assurance records, the audit reports and the documents describing corrective action, as required by the report. Records of response to prior audits shall be subject to future audit.

152
990448

ISSUED BY W.J.B.	APPROVED BY W.J.B.	DATE ISSUED 8/27/78	SUPPERSEDES ISSUE DATED 6/15/78	REV. NO. 1	PAGE 8-1
---------------------	-----------------------	------------------------	------------------------------------	---------------	-------------