TI 4100.26

Aircraft Maintenance and Engineering Division

ENVIRONMENTAL AND SAFETY OPERATIONS MANUAL

AVIATION SYSTEM STANDARDS

Mike Monroney Aeronautical Center
6500 South MacArthur Blvd.
Oklahoma City, Oklahoma 73125

CHANGE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

TI 4100.26
CHANGE 03

SUBJ: Aircraft Maintenance and Engineering Division Environmental and Safety Operations Manual

Change 03 provides a complete rewrite of Chapter V and changes “Flight Inspection Maintenance Division” to “Aircraft Maintenance and Engineering Division” throughout the manual.

The Cover Page title is changed from "Flight Inspection Maintenance Division" to "Aircraft Maintenance and Engineering Division".

The List of Effective Pages is updated.

The Foreword is updated.

The Master Table of Contents is updated.

Chapter I, Section 1, paragraph A.(1) changes “Fight Inspection Maintenance Division” to “Aircraft Maintenance and Engineering Division”.

Chapter I, Section 3, paragraph A changes "Fight Inspection Maintenance Division” to “Aircraft Maintenance and Engineering Division”.

Chapter I, Section 5, paragraph A changes “FIMD” to “AMED”.

Chapter I, Section 6, paragraph B.(2), changes “Fight Inspection Maintenance Division” to “Aircraft Maintenance and Engineering Division”.

Chapter II, Section 2, paragraph B Title, change "Fight Inspection Maintenance Division” to “Aircraft Maintenance and Engineering Division”.

Chapter V, title is changed from “HAZARDOUS MATERIALS HANDLING AND STORAGE” to “HAZARDOUS MATERIALS MANAGEMENT”.

Chapter V, Sections 1, 2, 3, 4, 5 and 6 are rewritten for content and clarity.

Chapter V, Section 7 is rewritten as “DEFINITIONS”.

Chapter V, Section 8, titled “REGULATIONS, ORDERS, REQUIREMENTS AND STATUTES" is initiated.

Chapter V, Section 9, titled "HAZMAT INFORMATION AND TRAINING REQUIREMENTS" is initiated.

Chapter V, Section 10, titled “CHEMICAL MANAGEMENT PROCEDURES” is initiated.

Chapter V, Section 11, titled “WASTE DISPOSAL PROCEDURES” is initiated.

Chapter V, Section 12, titled “CHEMICAL INFORMATION LIST (CIL) AND MATERIAL SAFETY DATA SHEETS (MSDS) MANAGEMENT” is initiated.

Chapter V, Section 13, titled “WORK PRACTICES” is initiated.

Chapter VII, Section 3, paragraph A.(1) changes "Fight Inspection Maintenance Division” to “Aircraft Maintenance and Engineering Division”.

Chapter IX, Section 1, paragraph A changes "Fight Inspection Maintenance Division” to “Aircraft Maintenance and Engineering Division”.

Chapter XIV, Section 1, paragraph A changes "Fight Inspection Maintenance Division” to “Aircraft Maintenance and Engineering Division”.

Chapter XIX, Section 1, paragraph A changes "Fight Inspection Maintenance Division” to “Aircraft Maintenance and Engineering Division”.

Chapter XIX, Section 2, paragraph B changes "Fight Inspection Maintenance Division” to “Aircraft Maintenance and Engineering Division”.

Chapter XIX, Section 3, paragraph A changes "Fight Inspection Maintenance Division” to “Aircraft Maintenance and Engineering Division”.

After inserting this Change, enter your initials and the date on the RECORD OF CHANGES PAGE LOCATED AT THE FRONT OF THE MANUAL. File this change notice behind the manual title page.

PAGE CONTROL CHART

Remove from Chapter/ Section	Pages	Dated	Insert In Chapter/ Section	Pages	Dated
Cover Page			Cover Page		
LEP	1-6	07/26/02	LEP	1-8	09/15/04
Foreword	i	09/18/01	Foreword	i	09/15/04

Remove from Chapter/ Section	Pages	Dated	Insert In Chapter/ Section	Pages	Dated
0.0	0.0.1-0.0.4	07/26/02	0.0	0.0.1-0.0.4	09/15/04
I.1	I.1.1	09/01/98	I.1	I.1.1	09/15/04
I.3	I.3.1	09/18/01	I.3	I.3.1	09/15/04
I.5	I.5.1	07/26/02	I.5	I.5.1	09/15/04
I.6	I.6.1	07/26/02	I.6	I.6.1	09/15/04
II.2	II.2.1	09/18/01	II.2	II.2.1	09/15/04
V.1	V.1.1-V.1.2	09/18/01	V.I	V.1.1-V.1.4	09/15/04
V.2	V.2.1 V.2.2 V.2.3 V.2.4	09/18/01 07/26/02 09/18/01 09/01/98	V.2	V.2.1-V.2.5	09/15/04
V.3	V.3.1	09/18/01	V.3	V.3.1-V.3.3	09/15/04
V.4	V.4.1	09/18/01	V.4	V.4.1-V.4.3	09/15/04
V.5	V.5.1	09/01/98	V.5	V.5.1-V.5.3	09/15/04
V.6	V.6.1-V.6.5	09/18/01	V.6	V.6.1	09/15/04
V.7	V.7.1	09/18/01	V.7	V.7.1-V.7.4	09/15/04
			V.8	V.8.1-V.8.2	09/15/04
			V.9	V.9.1-V.9.11	09/15/04
			V.10	V.10.1-V.10.7	09/15/04
			V.11	V.11.1-V.11.45	09/15/04
			V.12	V.12.1-V.12.2	09/15/04
			V.13	V.13.1-V.13.17	09/15/04

Remove from Chapter/ Section	Pages	Dated	Insert In Chapter/ Section	Pages	Dated
VII.3	VII.3.1	07/26/02	VII.3	VII.3.1	09/15/04
IX.1	IX.1.1	09/01/98	IX.1	IX.1.1	09/15/04
XIV.1	XIV.1.1	09/18/01	XIV	XIV.1.1	09/15/04
XIX.1	XIX.1.1	07/26/02	XIX.1	XIX.1.1	09/15/04
XIX.2	XIX.2.1	07/26/02	XIX.2	XIX.2.1	09/15/04
XIX.3	XIX.3.1	07/26/02	XIX.3	XIX.3.1	09/15/04

Thomas D. Pickle, Director of Maintenance
Aircraft Maintenance and Engineering Division, AVN-300

Dated 9/17/04

*DISCLAIMER: This form is applicable to hard copies of the Environmental and Safety Operations Manual only. It does not indicate the current change status of the electronic version of the Environmental and Safety Operations Manual. Change status is indicated in the Manuals Block of the Electronic Maintenance Library.

RECORD OF CHANGES

DIRECTIVE NO. **TI 4100.26**

Keep your directives current. After filing revised pages and removing obsolete pages, initial and date the block following the change number. Request any missing changes from your central distribution point.

CHG. NO	INITIAL	DATE	CHG. NO.	INITIAL	DATE	CHG. NO.	INITIAL	DATE	CHG. NO.	INITIAL	DATE
1			31			61			91		
2			32			62			92		
3			33			63			93		
4			34			64			94		
5			35			65			95		
6			36			66			96		
7			37			67			97		
8			38			68			98		
9			39			69			99		
10			40			70			100		
11			41			71			101		
12			42			72			102		
13			43			73			103		
14			44			74			104		
15			45			75			105		
16			46			76			106		
17			47			77			107		
18			48			78			108		
19			49			79			109		
20			50			80			110		
21			51			81			111		
22			52			82			112		
23			53			83			113		
24			54			84			114		
25			55			85			115		
26			56			86			116		
27			57			87			117		
28			58			88			118		
29			59			89			119		
30			60			90			120		

VN Form 4100-65 (02/01) Electronic Version (MSWord)

*DISCLAIMER: This form is applicable to hard copies of the Environmental and Safety Operations Manual only. It does not indicate the current change status of the electronic version of the Environmental and Safety Operations Manual. Change status is indicated in the Manuals Block of the Electronic Maintenance Library.

RECORD OF TEMPORARY REVISIONS

DIRECTIVE NO. **TI 4100.26**

Keep your directives current. After filing revised pages and removing obsolete pages, enter TR number, initial and date the block following the change number. Request any missing changes from your central distribution point. Do not keep obsolete pages except in master file.

CHANGE NO.	INITIAL	*DATE*	CHANGE NO.	INITIAL	DATE	CHANGE NO	INITIAL	DATE

FEDERAL AVIATION ADMINISTRATION
ENVIRONMENTAL AND SAFETY OPERATIONS MANUAL

LIST OF EFFECTIVE PAGES

The List of Effective Pages contains Paragraph A change numbers to the TI 4100.26 and their date of issuance and Paragraph B is a list of manual pages and their current change number. Individual page change numbers can be cross referenced to the list in Paragraph A to determine the date of change.

File this List of Effective Pages behind the Record of Changes page in the front of this Manual.

A.

Manual Change Number	Date of Issuance
00	09/01/98
01	09/18/01
TEMPORARY REVISION 02-01-01	03/15/02
02	07/26/02
*03	09/15/04

B. Total number of pages in this Manual is 283 consisting of the following:

	NAME	PAGE NO.	CHANGE NO.
	Record of Changes	Unnumbered	01
	Record of Temporary Revisions	Unnumbered	02
*	List of Effective Pages	1	03
*		2	03
*		3	03
*		4	03
*		5	03
*		6	03
*		7	03
*		8	03
*	FOREWORD	i	03
*	MASTER TABLE OF CONTENTS	0.0.1	03
*		0.0.2	03
*		0.0.3	03
*		0.0.4	03
*	CHAPTER I	I.1.1	03
		I.2.1	02
*		I.3.1	03
		I.4.1	01
		I.4.2	00
		I.4.3	02
		I.4.4	00

	NAME	PAGE NO.	CHANGE NO.
*		I.5.1	03
*		I.6.1	03
	CHAPTER II	II.1.1	00
*		II.2.1	03
		II.2.2	00
		II.3.1	00
		II.4.1	00
	CHAPTER III	III.1.1	01
		III.2.1	02
		III.2.2	02
		III.3.1	00
		III.3.2	00
		III.3.3	00
		III.4.1	00
	CHAPTER IV	IV.1.1	01
		IV.1.2	00
		IV.1.3	00
		IV.1.4	00
		IV.1.5	00
		IV.1.6	00
		IV.1.7	00
		IV.1.8	00
		IV.1.9	00
		IV.1.10	00
		IV.1.11	00
		IV.2.1	01
		IV.3.1	02
		IV.3.2	00
		IV.3.3	00
		IV.3.4	00
		IV.3.5	00
		IV.3.6	00
		IV.3.7	00
		IV.4.1	00
		IV.4.2	00
		IV.4.3	00
		IV.4.4	00
		IV.4.5	00
		IV.4.6	00
		IV.4.7	00
		IV.4.8	00
		IV.4.9	00

	NAME	PAGE NO.	CHANGE NO.
		IV.4.10	00
		IV.4.11	00
		IV.4.12	00
		IV.4.13	00
		IV.4.14	00
*	CHAPTER V	V.1.1	03
*		V.1.2	03
*		V.1.3	03
*		V.1.4	03
*		V.2.1	03
*		V.2.2	03
*		V.2.3	03
*		V.2.4	03
*		V.2.5	03
*		V.3.1	03
*		V.3.2	03
*		V.3.3	03
*		V.4.1	03
*		V.4.2	03
*		V.4.3	03
*		V.5.1	03
*		V.5.2	03
*		V.5.3	03
*		V.6.1	03
*		V.7.1	03
*		V.7.2	03
*		V.7.3	03
*		V.7.4	03
*		V.8.1	03
*		V.8.2	03
*		V.9.1	03
*		V.9.2	03
*		V.9.3	03
*		V.9.4	03
*		V.9.5	03
*		V.9.6	03
*		V.9.7	03
*		V.9.8	03
*		V.9.9	03
*		V.9.10	03
*		V.9.11	03

	NAME	PAGE NO.	CHANGE NO.
*		V.10.1	03
*		V.10.2	03
*		V.10.3	03
*		V.10.4	03
*		V.10.5	03
*		V.10.6	03
*		V.10.7	03
*		V.11.1	03
*		V.11.2	03
*		V.11.3	03
*		V.11.4	03
*		V.11.5	03
*		V.11.6	03
*		V.11.7	03
*		V.11.8	03
*		V.11.9	03
*		V.11.10	03
*		V.11.11	03
*		V.11.12	03
*		V.11.13	03
*		V.11.14	03
*		V.11.15	03
*		V.11.16	03
*		V.11.17	03
*		V.11.18	03
*		V.11.19	03
*		V.11.20	03
*		V.11.21	03
*		V.11.22	03
*		V.11.23	03
*		V.11.24	03
*		V.11.25	03
*		V.11.26	03
*		V.11.27	03
*		V.11.28	03
*		V.11.29	03
*		V.11.30	03
*		V.11.31	03
*		V.11.32	03
*		V.11.33	03
*		V.11.34	03
*		V.11.35	03

	NAME	PAGE NO.	CHANGE NO.
*		V.11.36	03
*		V.11.37	03
*		V.11.38	03
*		V.11.39	03
*		V.11.40	03
*		V.11.41	03
*		V.11.42	03
*		V.11.43	03
*		V.11.44	03
*		V.11.45	03
*		V.12.1	03
*		V.12.2	03
*		V.13.1	03
*		V.13.2	03
*		V.13.3	03
*		V.13.4	03
*		V.13.5	03
*		V.13.6	03
*		V.13.7	03
*		V.13.8	03
*		V.13.9	03
*		V.13.10	03
*		V.13.11	03
*		V.13.12	03
*		V.13.13	03
*		V.13.14	03
*		V.13.15	03
*		V.13.16	03
*		V.13.17	03
	CHAPTER VI	VI.1.1	00
		VI.1.2	00
	CHAPTER VII	VII.1.1	00
		VII.1.2	00
		VII.1.3	00
		VII.1.4	00
		VII.1.5	00
		VII.2.1	00
		VII.2.2	00
*		VII.3.1	03
		VII.4.1	00

	NAME	PAGE NO.	CHANGE NO.
	CHAPTER VIII	VIII.1.1	00
		VIII.1.2	00
		VIII.1.3	00
*	CHAPTER IX	IX.1.1	03
		IX.1.2	00
		IX.1.3	00
		IX.1.4	00
		IX.1.5	00
		IX.1.6	00
	CHAPTER X	X.1.1	01
		X.1.2	01
	CHAPTER XI	XI.1.1	01
	CHAPTER XII	XII.1.1	00
		XII.1.2	00
		XII.1.3	00
	CHAPTER XIII	XIII.1.1	01
		XIII.1.2	00
		XIII.1.3	01
*	CHAPTER XIV	XIV.1.1	03
		XIV.1.2	01
		XIV.1.3	01
		XIV.1.4	01
		XIV.1.5	01
		XIV.1.6	01
		XIV.1.7	01
		XIV.1.8	01
		XIV.1.9	01
		XIV.1.10	01
		XIV.1.11	01
	CHAPTER XV	XV.1.1	01
		XV.2.1	01
		XV.2.2	01
		XV.3.1	01
		XV.3.2	01
		XV.3.3	01
		XV.3.4	01
		XV.4.1	01
		XV.5.1	01
		XV.5.2	01
		XV.5.3	02
		XV.6.1	01
		XV.7.1	01

NAME	PAGE NO.	CHANGE NO.
	XV.8.1	01
CHAPTER XVI	XVI.1.1	01
	XVI.2.1	01
	XVI.3.1	01
	XVI.4.1	01
	XVI.5.1	01
	XVI.5.2	01
	XVI.6.1	01
	XVI.6.2	01
	XVI.7.1	01
	XVI.7.2	01
	XVI.8.1	01
	XVI.9.1	01
	XVI.10.1	01
	XVI.10.2	01
	XVI.11.1	01
	XVI.11.2	01
CHAPTER XVII	XVII.1.1	01
	XVII.2.1	01
	XVII.3.1	01
	XVII.4.1	01
	XVII.4.2	01
	XVII.4.3	01
	XVII.4.4	01
	XVII.4.5	01
	XVII.4.6	01
	XVII.5.1	01
	XVII.5.2	02
	XVII.6.1	01
	XVII.6.2	01
	XVII.7.1	01
	XVII.7.2	01
	XVII.7.3	01
	XVII.8.1	01
	XVII.8.2	01
	XVII.9.1	01
	XVII.9.2	01
CHAPTER XVIII	XVIII.1.1	01
	XVIII.1.2	01

	NAME	PAGE NO.	CHANGE NO.
*	CHAPTER XIX	XIX.1.1	03
		XIX.1.2	02
		XIX.1.3	02
		XIX.1.4	02
		XIX.1.5	02
		XIX.1.6	02
*		XIX.2.1	03
		XIX.2.2	02
*		XIX.3.1	03
		XIX.4.1	02
		XIX.4.2	02
		XIX.5.1	02
		XIX.5.2	02
		XIX.6.1	02
		XIX.6.2	02

FEDERAL AVIATION ADMINISTRATION
ENVIRONMENTAL AND SAFETY OPERATIONS MANUAL

FOREWORD

*The Aircraft Maintenance and Engineering Division Environmental and Safety Operations Manual provides regulatory and operational guidance for Environmental, Safety and Health (ESH) Program issues for FAA Aviation System Standards management and employees. Specific differences and applications to individual Line Stations may be contained in appendixes to this manual.

Approved By: _____ Date: 9/17/04
Thomas D. Pickle, Director of Maintenance
Aircraft Maintenance and Engineering Division, AVN-300

FEDERAL AVIATION ADMINISTRATION
ENVIRONMENTAL AND SAFETY OPERATIONS MANUAL

MASTER TABLE OF CONTENTS

CHAPTER I. GENERAL

1. GENERAL

A. BACKGROUND

*(1) The Aircraft Maintenance and Engineering Division, AVN-300, has the responsibility to maintain a safe and healthful working environment for all employees. To accomplish this AVN-300 has established an Environmental and Safety Operations Plan.

(2) AVN-300 activities will be conducted in compliance with all operational plans and national and local regulations in coordination with and under the program management oversight of the Office of Facility Management, AMP-100.

(3) In the event of conflict between the Occupational Safety and Health Act and the AVN-300 Environmental and Safety Operations Plan or other AVN-300 supplied instructions, the Occupational Safety and Health Act has precedence.

B. ORGANIZATIONAL MISSIONS

(1) AVN is tasked with the responsibility to ensure compliance with Occupational Safety and Health Act policies and standards through coordination with AMP-100.

(2) AMP-100 will provide management oversight and program development for the AVN Environmental, Safety and Health Program

CHAPTER I. GENERAL

2. ENVIRONMENTAL AND SAFETY OPERATIONS MANUAL - TI 4100.26

A. PURPOSE

The purpose of this manual is to provide AVN-300 personnel with a management and procedures document to assure compliance with the applicable parts of the Occupational Safety and Health Act and the Code of Federal Regulations.

B. SCOPE

This manual provides operational and regulatory guidance under the AVN-300 Environmental and Safety Operations Plan.

C. RESPONSIBILITIES

AVN-300 personnel are required to comply with the duties, responsibilities and procedures contained in this manual. The Manager of AVN-300 is responsible for the content, accuracy and approval of all revisions. A master file is maintained by AVN-320.

D. INFORMATION DEFICIENCY

*Any employees finding deficiencies, needing clarification, or having suggested improvements regarding the contents of this manual will identify the item to their supervisor, documented in accordance with Request for Action, VN Form 4100-170 instructions in Chapter IV of the FAA General Maintenance Manual, TI 4100.24.

CHAPTER I. GENERAL

3. MANUAL STRUCTURE

A. GENERAL

*The Aircraft Maintenance and Engineering Division Environmental and Safety Operations Manual is issued in loose-leaf and electronic form and is structured as follows:

(1) Record of Change - Provides space for recording insertion of revisions. (VN Form 4100-65).

(2) Foreword - Self-explanatory.

(3) List of Effective Pages - Provides the current manual change number, its date and a list of individual pages and their current change number.

(4) Master Table of Contents - A Master Table of Contents, located in the front of this manual, will list the chapter and section titles and beginning page number.

(5) Chapter Table of Contents - A Chapter Table of Contents, located in the front of each chapter, lists the major subjects and the page number where located.

(6) Chapters - Sequentially numbered, beginning with Roman numeral I (one).

(7) Sections - Sequentially numbered with Arabic numbers beginning with number one (1), as in IV.1.

(8) Pages - Pages are sequentially numbered. Each page number begins with the chapter number followed by a decimal (.) section number followed by a decimal and the page number. This number is located on the lower corner of each page, e.g., II.10.1.

(a) Date: Date of each page will be listed on the top of each page. This signifies the latest revision date for that page. The date format will be listed numerically as month/date/year, e.g., 09/01/98.

(b) Change number - A number will be shown in the corner under the TI number, indicating the revision number of that page.

CHAPTER I. GENERAL

4. REVISION SYSTEM

A. GENERAL

(1) The revision system provides methods to ensure new information can be incorporated into the approved TI manual system. The basic manual is revised on an as-needed basis using one of the following methods.

(a) Routine Revisions - The routine method of revision is done by issuing page changes, as required, which contain all needed changes developed by the date of issue.

(b) Temporary Revisions - A temporary revision is issued to disseminate information which is sufficiently urgent to justify priority and expedited action.

(2) Action to correct misspelled words or to improve sentence structure will be held until a routine revision is made.

B. ROUTINE REVISIONS

(1) Changes to the basic manual will be issued as “page changes” ready for insertion. A Transmittal Page will accompany all changes issued, and is identified by a black rectangle located in the upper left hand corner with the word CHANGE contained therein. The Transmittal Page will identify the manual being changed, indicate the change number, show the effective date of the change(s), provide a synopsis of the major changes, and include a Page Control Chart to indicate the pages to be removed and/or inserted, as appropriate.

*(2) A RECORD OF CHANGES page, VN Form 4100-65, is included in the front of each manual to record the date the change was inserted into the manual. This page will provide a quick reference for determining the revisions status of the specific manual.

(3) If most of the data in a paragraph or section has been revised, an asterisk will be placed at the highest level to indicate that all the data in the section or paragraph has been revised. The asterisk will be removed at subsequent revisions so that only changes made by the current revision are indicated.

C. TEMPORARY REVISIONS

(1) Temporary Revisions (TR's) issued on blue-colored paper and have the statement "Temporary Revision" shown in the page header. Each TR will show the date of issue, TR number, filing instructions, and an expiration date when appropriate.

(2) Each TR is numbered using the last two digits of the year of issue, a digit or digits which show the current change number of the basic manual at the time the TR is issued, and a number denoting the issue sequence during the year (i.e., 98-04-01. Where 98 is 1998, 04 is the fourth change to the basic manual and the 01 is the first TR issued in 1998).

(3) Temporary Revisions are issued to Environmental and Safety Operations Manual holders.

(4) Temporary Revisions will be filed as per instruction on the Control Page. The TR will be included in the next routine revision.

(5) Each Environmental and Safety Operations Manual will have a Record of Temporary Revisions sheet (blue colored), which will be filed following the basic manual Record of Revision sheet. The TR revision sheet will be initialed by the person placing the TR in the manual.

D. REVISIONS RESPONSIBILITIES

(1) AVN-300 is responsible for:

(a) Assuring the Environmental and Safety Operations programs meet regulatory compliance.

(b) Standardization of manual format.

(c) Control of changes for this manual.

(d) Printing of the manual and changes.

(e) Obtaining distribution of the manual and changes.

(f) Soliciting comments and making necessary corrections.

(g) Make the Environmental and Safety Operations Manual or appropriate portions available to any AVN-300 employee.

(2) Users are responsible for:

(a) Forwarding suggested corrections and changes to AVN-320 for processing.

(b) Maintaining assigned manuals, including changes. Each person issued a copy of this manual is responsible for inserting all revisions and being familiar with its contents.

E. SUGGESTED CHANGES

*Suggested manual changes and temporary revisions will be forwarded via cc:mail or on a Request for Action, VN Form 4100-170, (see FAA GMM Chapter IV) through the employee's supervisor, to the Manager, AVN-320, for review and processing. Proposed manual changes and temporary revisions will be reviewed for compliance with AVN policy before printing and distribution. VN Form 4100-170 is available on the FEDS web site of http://feds.faa.gov.

F. PROCESSING CHANGES

(1) Routine Revisions: Routine revisions to the Environmental and Safety Operations Manual will be developed from the Temporary Revisions and other requests for changes accumulated for that period. All proposed changes will be addressed. Upon completion, the change will be developed and coordinated with AMP-100. This change will supersede all previously issued Temporary Revisions. The Quality Assurance Branch, AVN-320, is responsible for development, review, revision, coordination, formatting revision indicators and regulatory compliance before printing and distribution of manual changes.

(2) Temporary Revisions: Temporary revisions will be issued at such times when the program requires urgent changes in order to successfully meet its mission. The Manager of AVN-320 is responsible for the development and coordination of temporary revisions. All temporary revisions will be coordinated by AVN-320 for printing and distribution. Temporary revisions will remain in effect until either a superseding temporary revision is issued or the text is canceled or incorporated in the manual in a routine revision.

(3) Chapter Table of Contents: As changes are made to the original manual, the Chapter Table of Contents is changed to include a complete list of basic, changed, deleted and blank pages in numerical sequence.

G. LIST OF EFFECTIVE PAGES (LEP)

A comprehensive List of Effective Pages will be compiled as a part of each change produced.

CHAPTER I. GENERAL

5. MANUAL ACCESS

A. GENERAL

*The Environmental and Safety Operations Manual, TI 4100.26, is controlled and available through AMED, AVN-300 web site, Electronic Maintenance Library at "http://avn.faa.gov/index.asp?xml=fimo/eml". The Program Standards Section, AVN-328, will maintain the master copy of this Manual. Revision to the web site will be made as changes are issued.

NOTE: Pages downloaded or printed from the web site become uncontrolled and become the responsibility of the user to ensure the currency of this document.

The Quality Assurance Branch, AVN-320, will make available appropriate portions of the TI 4100.26 manual to any personnel performing maintenance or ground operations on FAA aircraft.

CHAPTER I. GENERAL

6. TECHNICAL ISSUANCE SYSTEM CLASSIFICATION NUMBERS

A. GENERAL

AVN-320 maintains a library of manuals that are used as basis for Technical Issuance manuals.

B. CHANGES

(1) Authorized material, revisions or deletions applicable to the TI system will be issued to the affected manual through the use of "Change" pages. These change transmittals will be sequentially numbered and controlled within the individual manuals revision checklist. For example, TI 4102.1, CHG. 1, will identify the first change issued to the basic TI 4102.1.

*(2) A list of all Technical Issuances by directive number with a breakdown of all Technical Issuances associated with that series and their respective sub-directive number can be obtained at "http://avn.faa.gov/index.asp?xml=fimo/eml", Technical Issuance Checklist. The Checklist is updated by AVN-328. The Environmental and Safety Operations Manual is also controlled through the Aircraft Maintenance and Engineering Division (AMED), AVN-300, web site, Electronic Maintenance Library at "http://avn.faa.gov/index.asp?xml=fimo/eml".

C. DISTRIBUTION

All AVN-300 Environmental and Safety instructions will be distributed from AVN-300 to applicable using organizations. A "Change" transmittal with full instructions will accompany this material.

CHAPTER II. ENVIRONMENTAL AND SAFETY OPERATIONS PLAN

1. BACKGROUND

A. GENERAL

(1) Public Law 91-596, Occupational Safety and Health Act of 1970, Section 19, contains provisions to assure safe and healthful working conditions for all employees. Titles 29, 40 and 49 of the Code of Federal Regulations contain specific requirements for programs.

B. OBJECTIVE

(1) This manual is designed to provide guidance, both regulatory and operationally, on ESH issues of AVN employees and management. Responsibilities of all personnel impacting or being impacted by the AVN ESH program are detailed in this manual. The manual provides an easy reference for supervisors and employees to use for the determination and application of local and federal regulations.

(2) The goal of this plan is to ensure the ESH responsibilities are detailed for key management, staff, line and support positions and that provisions for ensuring all ESH program requirements are included in maintenance and support contracts.

(3) The plan will not restate regulations or Aeronautical Center orders. This plan will incorporate facility and national regulations into an easily understood manner for supervisor compliance and control.

CHAPTER II. ENVIRONMENTAL AND SAFETY OPERATIONS PLAN

2. RESPONSIBILITIES

A. OFFICE OF FACILITY MANAGEMENT (AMP-100)

AMP-100 will provide management oversight and ESH program development for AVN. Responsibilities include helping AVN write program specific requirements and detailed training requirements. AMP-100 will coordinate with AVN to ensure that these requirements are met. This office will be the definitive source for ESH issues, interpretations, and requirements. AMP-100 will also be responsible for educating AVN safety and environmental specialists, as well as employees and supervisors. This office will perform program audits and be a standing member of the AVN-300 Environmental and Safety Compliance Committee.

*B. AIRCRAFT MAINTENANCE AND ENGINEERING DIVISION (AVN-300)

This organization will be responsible for ensuring compliance with all operational plans, national and local regulations, and providing accurate information to AMP-100 for the purpose of program management. AVN-300 will appoint qualified and knowledgeable environmental and safety personnel to conduct these activities.

The environmental and safety personnel assigned to this organization will communicate regularly with AMP-100 to ensure consistent policy is given through the Aeronautical Center. AMP-100 will work with AVN-300 to keep them informed of new regulations and requirements. AVN-300 will be responsible for day-to-day environmental and safety situations, performing spot inspections, and acting as a liaison between AMP-100 and AVN first-line supervisors and employees. This section will ensure regulatory compliance for AVN but regulatory interpretation will be left to AMP-100. All new processes under consideration must be coordinated through AMP-100. This includes equipment purchases, chemical substitutions, etc.

C. FIRST LINE SUPERVISORS

The supervisors will be responsible for ensuring that their area is always in compliance with national and local environmental and safety regulations. Any questions should first be directed to AVN-300 and then to AMP-100, if necessary. First-line supervisors will have first-hand knowledge of shop procedures and policies and will inform AVN-300 or AMP-100 if potential ESH problems exist.

*D. EMPLOYEES

Each employee shall comply with the standards and policies applicable to his/her job as instructed by supervisors or AVN-300 safety and environmental specialists. Employees shall use safety and personal protective equipment and procedures provided for their protection. Each employee shall report any unsafe condition to their supervisor or AVN-300 as soon as possible.

*E. LINE MAINTENANCE STATIONS

Line Maintenance Supervisors have the same responsibilities as first-line supervisors. Environmental and safety specialist functions at the Line Maintenance Stations, LMS, will be performed by the supervisor or the ESH designee at that location.

CHAPTER II. ENVIRONMENTAL AND SAFETY OPERATIONS PLAN

3. SAFETY AND ENVIRONMENTAL RECORDS

A. GENERAL

OSHA regulations require employers to maintain occupational illness and injury records. The Environmental Protection Agency requires maintenance of records pertaining to chemical and hazardous waste disposal. These records will be kept on file in AMP-100.

CHAPTER II. ENVIRONMENTAL AND SAFETY OPERATIONS PLAN

4. EMERGENCY PREPAREDNESS PLAN

A. GENERAL

The AVN-300 Emergency Preparedness Plan is contained in the AVN Emergency Preparedness Plan administered by AVN-4.

CHAPTER III. EMERGENCY PROCEDURES

1. EMERGENCY RESPONSE

A. GENERAL

(1) In the event of an emergency, personnel should:

(a) Dial 4-3444 or 911
(b) Remain calm
(c) Give location of emergency
(d) Your name and telephone number
(e) Nature of illness or emergency

(2) Aeronautical Center guards will notify appropriate emergency response personnel, and dispatch a guard to the location of the incident.

B. BLOODBORNE PATHOGENS

When an injury occurs at the Aeronautical Center, 4-3444 or 911 should be called immediately to care for the person and clean up any blood or bodily fluid spill. Also, the individual's supervisor should be notified.

It is FAA policy that only emergency response personnel, hired to provide emergency care, be directly involved with injured persons. AVN-300 employees are not expected to perform first aid as part of their jobs.

If the injury is minor, e.g., an employee were to nick their finger and spill several drops of blood, that individual can clean up their own spill and emergency personnel certainly do not need to be summoned.

All employees have some risk of exposure to blood or infectious materials, e.g., accidental or intentional contact with a co-worker during emergency situations involving injury.

*Employees may perform first aid at work on a voluntary basis as "Good Samaritans". If these employees are exposed to bloodborne pathogens such as Hepatitis B Virus and Human Immunodeficiency Virus, they will be provided exposure treatment and post-exposure monitoring.

CHAPTER III. EMERGENCY PROCEDURES

2. SPILL RESPONSE PROCEDURES

A. GENERAL

(1) This section addresses spills, which occur during storage and handling of oil, jet fuel, hazardous materials and waste in AVN-300 hangars and respective ramp areas.

(2) Definitions:

(a) Major spill: Any spill greater than ten (10) gallons.

(b) Minor spill: Any spill less than ten (10) gallons.

(3) Spills of fuel, oil, greases or liquids of any type shall be cleaned immediately by the person(s) causing the spill. Spills of any size require that the supervisor on duty be notified immediately and corrective action taken.

B. MAJOR SPILL PROCEDURES

(1) Any person recognizing a spill shall immediately:

(a) Evacuate area, if warranted by the type of spill.

(b) Dial 4-3444 or 911 and give the following information:

1 Name
2 Type of chemical spilled, if known
3 Location of spill
4 Estimated quantity of spill

(c) Immediately notify supervisor in charge.

(d) Eliminate all sources of ignition, electrical or mechanical (e.g., turn off forklift motor).

*(e) Notify AVN-320 Safety and Environmental Staff at extension 4-3101, who will notify AMP-100, if necessary.

(f) Contain the spill, if it can be done safely.

(2) The supervisor shall:

(a) Evacuate/secure area, if necessary.

(b) Conduct employee roll call to determine if personnel are trapped in the affected area.

(c) Notify next level of supervision.

C. MINOR SPILL PROCEDURES

Any person recognizing a spill shall:

(1) Immediately notify supervisor in charge.

(2) Eliminate all sources of ignition, electrical or mechanical (e.g., turn off forklift motor).

*(3) Notify AVN-320 Safety and Environmental Staff at extension 4-3101, who will notify AMP-100, if necessary.

D. CONTAINMENT, CLEANUP AND DISPOSAL

(1) All major spills will be handled by the Aeronautical Center Safety and Environmental Office, AMP-100.

(2) Minor spills may be contained by creating dikes using absorbents, spill pillows (found in spill kits), etc. Disposal of cleanup materials will be in accordance with AVN waste disposal policy.

E. SPECIAL PRECAUTIONARY MEASURES

Proper safety equipment, which may include goggles, gloves, full length aprons, boots and respirator, is required when handling spilled hazardous materials. For information concerning particular hazards and precautionary measures for handling specific chemical materials, consult the appropriate Material Safety Data Sheet.

CHAPTER III. EMERGENCY PROCEDURES

3. BOMB THREAT

A. THREAT RECEIVED

(1) If a bomb threat is received, follow instructions on FAA Form 1600-53 (reference end of this section) at your telephone. If not available, they are listed below. Be observant!

(a) Notify 4-3444 or 911 immediately after receiving a bomb threat. Do as you are advised. Afterwards provide the following information to your supervisor:

(b) Questions to ask during threat:

1 What kind of bomb is it?
- a Time
- b Barometric Altitude
- c Anti-Handling

2 Where is it right now?

3 When is it going to explode?

4 What does it look like?

5 Did you place the bomb?

6 Why?

7 What is your name?

8 What is your address?

(c) Write down exact wording of threat.

(d) Give all information to your supervisor.

B. THREAT ANNOUNCED

(1) If a bomb threat is announced:

(a) Listen closely.

(b) If evacuation requested, proceed to your designated evacuation area in an orderly manner.

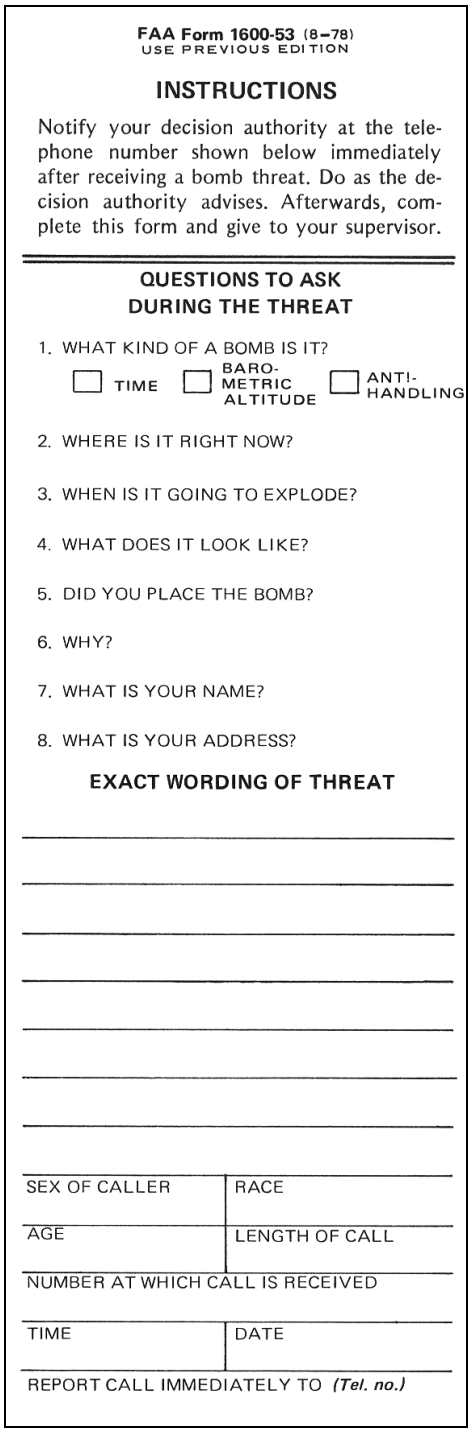
(c) Prior to evacuating, do not use telephones. All lines may be needed for emergency use.

(d) Assist the physically challenged.

(e) If requested, make a visual inspection of your work area.

(f) Do not return to your office or work area until an “all clear” is given.

BOMB THREAT, FAA FORM 1600-53



FAA Form 1600-53 (8-78)
USE PREVIOUS EDITION

INSTRUCTIONS

Notify your decision authority at the telephone number shown below immediately after receiving a bomb threat. Do as the decision authority advises. Afterwards, complete this form and give to your supervisor.

QUESTIONS TO ASK DURING THE THREAT

1. WHAT KIND OF A BOMB IS IT?
   ☐ TIME ☐ BARO-METRIC ALTITUDE ☐ ANTI-HANDLING
2. WHERE IS IT RIGHT NOW?
3. WHEN IS IT GOING TO EXPLODE?
4. WHAT DOES IT LOOK LIKE?
5. DID YOU PLACE THE BOMB?
6. WHY?
7. WHAT IS YOUR NAME?
8. WHAT IS YOUR ADDRESS?

EXACT WORDING OF THREAT

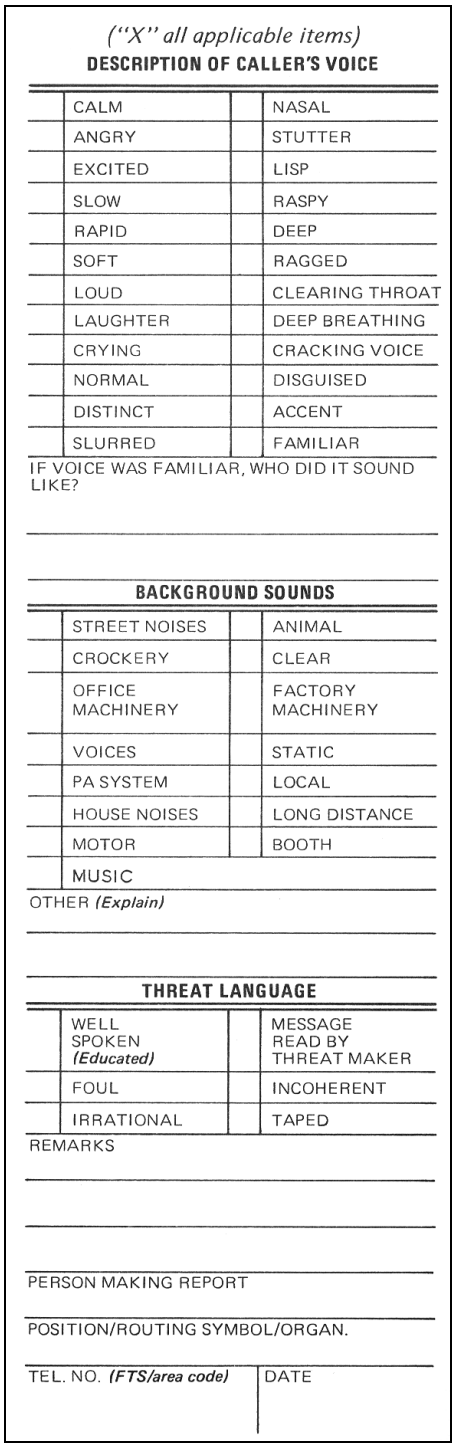
SEX OF CALLER	RACE
AGE	LENGTH OF CALL

NUMBER AT WHICH CALL IS RECEIVED

TIME	DATE

REPORT CALL IMMEDIATELY TO *(Tel. no.)*

FRONT



("X" all applicable items)

DESCRIPTION OF CALLER'S VOICE

	CALM		NASAL
	ANGRY		STUTTER
	EXCITED		LISP
	SLOW		RASPY
	RAPID		DEEP
	SOFT		RAGGED
	LOUD		CLEARING THROAT
	LAUGHTER		DEEP BREATHING
	CRYING		CRACKING VOICE
	NORMAL		DISGUISED
	DISTINCT		ACCENT
	SLURRED		FAMILIAR

IF VOICE WAS FAMILIAR, WHO DID IT SOUND LIKE?

BACKGROUND SOUNDS

	STREET NOISES		ANIMAL
	CROCKERY		CLEAR
	OFFICE MACHINERY		FACTORY MACHINERY
	VOICES		STATIC
	PA SYSTEM		LOCAL
	HOUSE NOISES		LONG DISTANCE
	MOTOR		BOOTH
	MUSIC		

OTHER *(Explain)*

THREAT LANGUAGE

	WELL SPOKEN *(Educated)*		MESSAGE READ BY THREAT MAKER
	FOUL		INCOHERENT
	IRRATIONAL		TAPED

REMARKS

PERSON MAKING REPORT

POSITION/ROUTING SYMBOL/ORGAN.

TEL. NO. *(FTS/area code)*	DATE

BACK

CHAPTER III. EMERGENCY PROCEDURES

4. EVACUATION OF WORK AREAS FOR FIRE, SEVERE WEATHER AND BOMB THREAT

A. GENERAL

During an actual or simulated emergency situation which requires evacuation of work areas, AVN-300 is responsible for monitoring the situation and advising the evacuation officers through the use of portable radios. Tune all radios to Channel 1 during emergency situations.

B. NOTIFICATION

Notification will normally be announced over the public address (PA) system or by audible alarms and the flashing of lights on the alarms.

C. SEVERE WEATHER

(1) Severe weather alerts will be announced over the PA system by the Aeronautical Center Duty Officer. When a tornado has been sighted in the immediate area, a long blast of a siren lasting 3 to 5 minutes will indicate the necessity for evacuating the work areas and seeking appropriate shelter.

(2) During an actual or simulated severe weather, if conditions permit, evacuate work area to the tunnel in the Headquarters Building. Enter through the southeast door to Sections B-1 through B-6 of the tunnel. Aeronautical Center Security will ensure the southeast door is unlocked for access to the tunnel during other than normal duty hours.

(3) In the event that time would not allow safe transit to the Headquarters building, an alternate shelter for the hangar area is the interior stairwells in the hangars.

CHAPTER IV. ACCIDENT REPORTING

1. ACCIDENT REPORTING PROCEDURES

A. GENERAL

When an accident or an emergency (fire, serious injury or illness, bomb threat, motor vehicle, or environmental/hazardous spill) occurs at the Aeronautical Center help should be summoned by immediately telephoning Security at 4-3444 or 911. They will contact emergency responders, provide clearance and guidance to vehicles, direct them to the location of the emergency and monitor the situation as necessary.

*B. RESPONSIBILITIES

Reports of accidents shall be completed by the supervisor of the person involved using FAA Form 3900-6, FAA Mishap Report (reference end of this section) , and the instructions contained in this section. The original of the form shall be forwarded directly to the Environmental and Safety Staff, AVN-300, within 24 hours of the mishap. After review, the report(s) will be promptly forwarded to AMP-100.

C. FORMS

In all cases in which an injury has occurred, the following forms will be submitted in addition to the FAA Mishap Report:

(a) Department of Labor Form CA-1, Federal Employees Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation, and when applicable,

(b) Department of Labor Form CA-2, Federal Employee's Notice of Occupational Disease and Claim for Compensation.

Reference forms at the end of this section.

D. REPORTABLE ACCIDENTS

Reportable accidents for the purpose of this section means injury, occupational illness, accident, including motor vehicle, property damage, fire, etc. All accidents involving FAA personnel, property or visitors to FAA facilities are reportable.

FAA MISHAP REPORT, FAA FORM 3900-6 (Page 1)

US Department of Transportation
Federal Aviation Administration

FAA MISHAP REPORT

I. GENERAL MISHAP DATA

Assigned by Safety and Health Mgr.
Report Number ________ Mishap Class __

Region ___ Organization Code ________
Unit Name ________ Mishap Date __/__/__
Location ________
Mishap Time ____
Facility Type ____ Equipment ________
Weather ________

Mishap Type Primary ________ Mishap Type Secondary ________
Phase of Operation ________
Seat Belt ___ (Y, N, U, N/A) Fatigue __ (Y, N, U) Drug/Alcohol __ (Y, N, U)
Y = Yes N = No U = Unknown N/A = Not Applicable

Total Number Exposed ___
Narrative of Mishap ________

Corrective Action ________

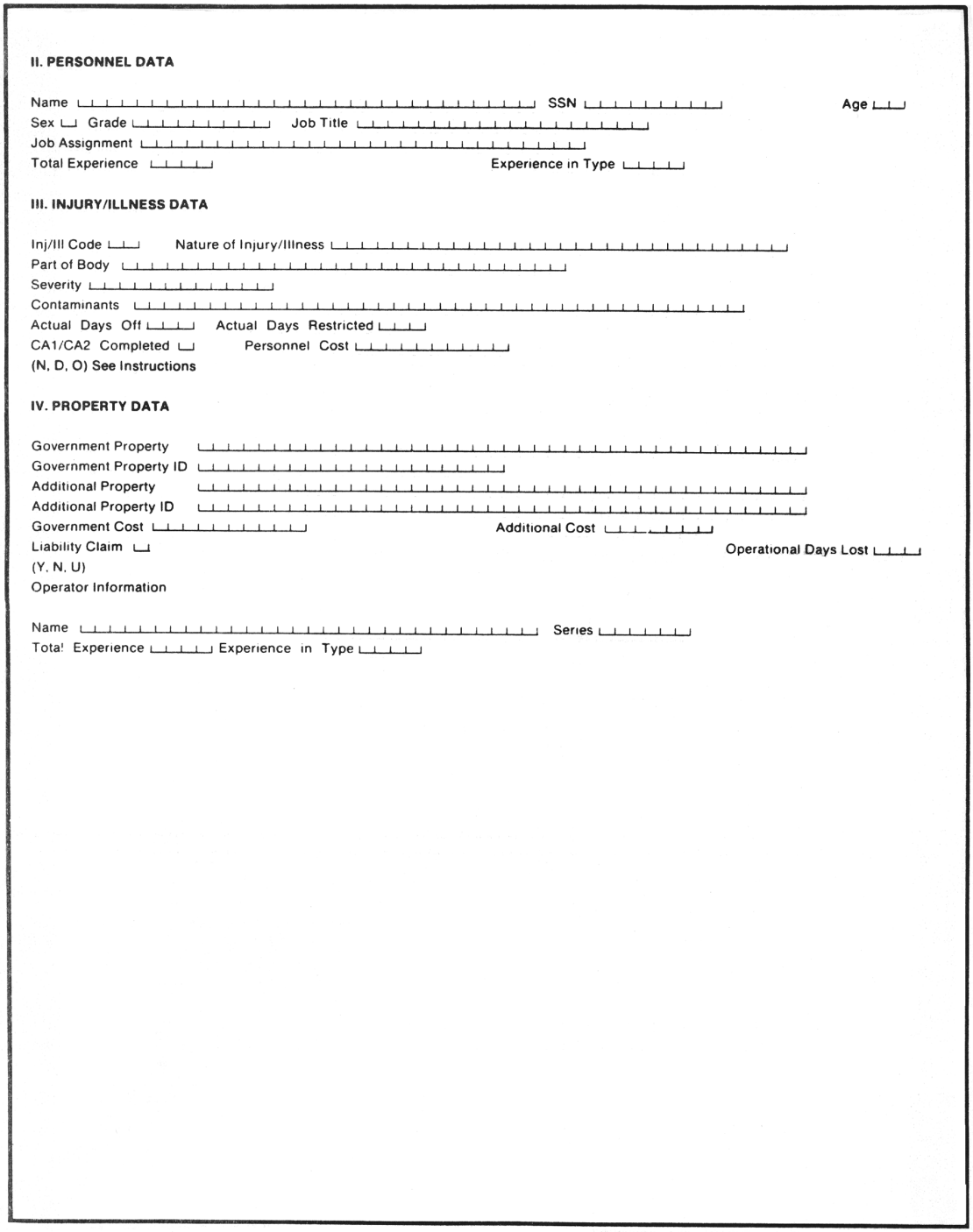
Cause ________

Reported By ________
Title ________ Report Date __/__/__

Completed by Safety and Health Mgr.
Report Complete __ Entered By: ________

FAA Form 3900-6 (10-85)

FAA MISHAP REPORT, FAA FORM 3900-6 (PAGE 2)



II. PERSONNEL DATA

Name ⌊⌋ SSN ⌊⌋ Age ⌊⌋
Sex ⌊⌋ Grade ⌊⌋ Job Title ⌊⌋
Job Assignment ⌊⌋
Total Experience ⌊⌋ Experience in Type ⌊⌋

III. INJURY/ILLNESS DATA

Inj/Ill Code ⌊⌋ Nature of Injury/Illness ⌊⌋
Part of Body ⌊⌋
Severity ⌊⌋
Contaminants ⌊⌋
Actual Days Off ⌊⌋ Actual Days Restricted ⌊⌋
CA1/CA2 Completed ⌊⌋ Personnel Cost ⌊⌋
(N, D, O) See Instructions

IV. PROPERTY DATA

Government Property ⌊⌋
Government Property ID ⌊⌋
Additional Property ⌊⌋
Additional Property ID ⌊⌋
Government Cost ⌊⌋ Additional Cost ⌊⌋
Liability Claim ⌊⌋ Operational Days Lost ⌊⌋
(Y, N, U)
Operator Information

Name ⌊⌋ Series ⌊⌋
Total Experience ⌊⌋ Experience in Type ⌊⌋

FEDERAL EMPLOYEE'S NOTICE OF TRAUMATIC INJURY AND CLAIM FOR CONTINUATION OF PAY/COMPENSATION, DEPARTMENT OF LABOR FORM CA-1 (Page 1)

Federal Employee's Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation

U.S. Department of Labor
Employment Standards Administration
Office of Workers' Compensation Programs

Employee: Please complete all boxes 1 - 15 below. Do not complete shaded areas.
Witness: Complete bottom section 16.
Employing Agency (Supervisor or Compensation Specialist): Complete shaded boxes a, b, and c.

Employee Data

1. Name of employee (Last, First, Middle) | 2. Social Security Number

3. Date of birth Mo. Day Yr. | 4. Sex ☐ Male ☐ Female | 5. Home telephone ( ) | 6. Grade as of date of injury Level Step

7. Employee's home mailing address (Include city, state, and zip code) | 8. Dependents ☐ Wife, Husband ☐ Children under 18 years ☐ Other

Description of Injury

9. Place where injury occurred (e.g. 2nd floor, Main Post Office Bldg., 12th & Pine)

10. Date injury occurred Mo. Day Yr. | Time : ☐ a.m. ☐ p.m. | 11. Date of this notice Mo. Day Yr. | 12. Employee's occupation

13. Cause of injury (Describe what happened and why)

a. Occupation code

14. Nature of injury (Identify both the injury and the part of body, e.g., fracture of left leg) | b. Type code | c. Source code

OWCP Use - NOI Code

Employee Signature

15. I certify, under penalty of law, that the injury described above was sustained in performance of duty as an employee of the United States Government and that it was not caused by my willful misconduct, intent to injure myself or another person, nor by my intoxication. I hereby claim medical treatment, if needed, and the following, as checked below, while disabled for work:

☐ a. Continuation of regular pay (COP) not to exceed 45 days and compensation for wage loss if disability for work continues beyond 45 days. If my claim is denied, I understand that the continuation of my regular pay shall be charged to sick or annual leave, or be deemed an overpayment within the meaning of 5 USC 5584.

☐ b. Sick and/or Annual Leave

Signature of employee or person acting on his/her behalf _____

Any person who knowingly makes any false statement, misrepresentation, concealment of fact, or any other act of fraud to obtain compensation as provided by the FECA or who knowingly accepts compensation to which that person is not entitled, is subject to felony criminal prosecution and may, under appropriate provisions, be punished by a fine or imprisonment, or both.

Have your supervisor complete the receipt attached to this form and return it to you for your records.

End of Employee Report

Witness

16. Statement of witness (Describe what you saw, heard, or know about this injury)

Name of witness | Signature of witness | Date signed

Address | City | State | Zip Code

CA-1
(Rev. 3/86)

FEDERAL EMPLOYEE'S NOTICE OF TRAUMATIC INJURY AND CLAIM FOR CONTINUATION OF PAY/COMPENSATION, DEPARTMENT OF LABOR FORM CA-1 (Page 2)

Official Supervisor's Report: Please complete information requested below

Supervisor's Report

17. Agency name and address of reporting office (Include city, state, and zip code) | OWCP Agency Code

OSHA Site Code

Zip Code

18. Employee's duty station (Street address and zip code) Zip Code

19. Regular work hours From: : ☐ a.m. ☐ p.m. To: : ☐ a.m. ☐ p.m.

20. Regular work schedule ☐ Sun. ☐ Mon. ☐ Tues. ☐ Wed. ☐ Thurs. ☐ Fri. ☐ Sat.

21. Date of injury Mo. Day Yr.

22. Date notice received Mo. Day Yr.

23. Date stopped work Mo. Day Yr. Time : ☐ a.m. ☐ p.m.

24. Date pay stopped Mo. Day Yr.

25. Date 45 day period began Mo. Day Yr.

26. Date returned to work Mo. Day Yr. Time : ☐ a.m. ☐ p.m.

27. Was employee injured in performance of duty? ☐ Yes ☐ No (If "No," explain)

28. Was injury caused by employee's willful misconduct, intoxication, or intent to injure self or another? ☐ Yes (If "Yes," explain) ☐ No

29. Was injury caused by third party? ☐ Yes ☐ No (If "No," go to item 31.)

30. Name and address of third party (Include city, state, and zip code)

31. Name and address of physician first providing medical care (Include city, state, zip code)

32. First date medical care received Mo. Yr.

33. Do medical reports show employee is disabled for work? ☐ Yes ☐ No

34. Does your knowledge of the facts about this injury agree with statements of the employee and/or witness? ☐ Yes ☐ No (If "No," explain)

35. Does the employing agency controvert continuation of pay? ☐ Yes (If "Yes," explain) ☐ No (See instructions for explanation of "controvert")

36. Pay rate when employee stopped work $ Per

Signature of Supervisor and Filing Instructions

37. A supervisor who knowingly certifies to any false statement, misrepresentation, concealment of fact, etc., in respect to this claim may also be subject to appropriate felony criminal prosecution.

I certify that the information given above and that furnished by the employee on the reverse of this form is true to the best of my knowledge with the following exception:

Name of supervisor (Type or print)

Signature of supervisor Date

Supervisor's Title Office phone

38. Filing instructions
☐ No lost time and no medical expense: Place this form in employee's medical folder (SF-66-D)
☐ No lost time, medical expense incurred or expected: forward this form to OWCP
☐ Lost time covered by leave, LWOP, or COP forward this form to OWCP

CA-1
(Rev. 3/86)

FEDERAL EMPLOYEE'S NOTICE OF TRAUMATIC INJURY AND CLAIM FOR CONTINUATION OF PAY/COMPENSATION, DEPARTMENT OF LABOR FORM CA-1 (Page 3)

Disability Benefits for Employees under the Federal Employees' Compensation Act (FECA)

The FECA, which is administered by the Office of Workers' Compensation Programs (OWCP), provides the following benefits for job-related, traumatic injuries:

(1) Continuation of pay for disability resulting from traumatic, job-related injury, not to exceed 45 calendar days. (To be eligible for continuation of pay, the employee, or someone acting on his/her behalf, must file Form CA-1 within 30 days following the injury; however, to avoid possible interruption of pay, the form should be filed within 2 working days. If the form is not filed within 30 days, compensation may be substituted for continuation of pay.)

(2) Payment of compensation for wage loss after the 45 days, if disability extends beyond such period.

(3) Payment of compensation for permanent impairment of certain organs, members, or functions of the body (such as loss or loss of use of an arm or kidney, loss of vision, etc.), or for serious disfigurement of the head, face, or neck.

(4) Vocational rehabilitation and related services where necessary.

(5) Full medical care from either Federal medical officers and hospitals, or private hospitals or physicians, of the employee's choice. Generally, 25 miles from the place of injury, place of employment, or employee's home is a reasonable distance to travel for medical care; however, other pertinent factors must also be considered in making selection of physicians or medical facilities.

At the time an employee stops work following a traumatic, job-related injury, he or she may request continuation of pay or use sick or annual leave credited to his or her record. Where the employing agency continues the employee's pay, the pay must not be interrupted until:

(1) The employing agency receives medical information from the attending physician to the effect that disability has terminated;

(2) The OWCP advises that pay should be terminated; or

(3) The expiration of 45 calendar days following initial work stoppage.

If disability exceeds, or it is anticipated that it will exceed, 45 days, and the employee wishes to claim compensation, Form CA-7, with supporting medical evidence, must be filed with OWCP. To avoid interruption of income, the form should be filed on the 40th day of the COP period. Form CA-3 shall be submitted to OWCP when the employee returns to work, disability ceases, or the 45 day period expires.

For additional information, review the regulations governing the administration of the FECA (Code of Federal Regulations, Title 20, Chapter 1) or Chapter 810 of the Office of Personnel Management's Federal Personnel Manual.

Privacy Act

In accordance with the Privacy Act of 1974 (Public Law No. 93-579, 5 U.S.C. 552a), you are hereby notified that:

(1) The Federal Employees' Compensation Act, as amended (5 U.S.C. 8101, et seq.) is administered by the Office of Workers' Compensation Programs of the U.S. Department of Labor. In accordance with this responsibility, the office receives and maintains personal information on claimants and their immediate families.

(2) The information will be used to determine eligibility for and the amount of benefits payable under the Act.

(3) The information may be used by other agencies or persons in matters relating directly or indirectly to the matter of the claim, so long as such agencies or persons have received the consent of the individual claimant, or complied with the provisions of 20 CFR 10.

(4) Failure to furnish all requested information may delay the process, or result in an unfavorable decision or a reduced level of benefits (disclosure of a social security number is voluntary; the failure to disclose such number will not result in the denial of any right, benefit or privilege to which an individual may be entitled).

Receipt of Notice of Injury

This acknowledges receipt of Notice of Injury sustained by
(Name of injured employee)

Which occurred on (Mo., Day, Yr.)

At (Location)

Signature of Official Superior | Title | Date (Mo., Day, Yr.)

U.S. GOVERNMENT PRINTING OFFICE : 1990 - 762-642

CA-1
(Rev. 3/86)

FEDERAL EMPLOYEE'S NOTICE OF TRAUMATIC INJURY AND CLAIM FOR CONTINUATION OF PAY/COMPENSATION, DEPARTMENT OF LABOR FORM CA-1 (Page 4)

Instructions for Completing Form CA-1

Complete all items on your section of the form. If additional space is required to explain or clarify any point, attach a supplemental statement to the form. Some of the items on the form which may require further clarification are explained below.

Employee (Or person acting on the employee's behalf)

13) Cause of Injury

Describe in detail how and why the injury occurred. Give appropriate details (e.g.: if you fell, how far did you fall and in what position did you land?)

14) Nature of Injury

Give a complete description of the condition(s) resulting from your injury. Specify the right or left side if applicable (e.g., fractured left leg; cut on right index finger).

15) Election of COP/Leave

If you are disabled for work as a result of this injury and file CA-1 within thirty days of the injury, you are entitled to receive continuation of pay (COP) from your employing agency. COP is paid for up to 45 calendar days of disability, and is not charged against sick or annual leave. You may elect sick or annual leave if you wish, but compensation from OWCP may not be claimed during the 45 days of COP entitlement. (You may not claim compensation to repurchase leave used during this period.) Also, if you later change your election, the agency is not obliged to convert past periods of leave to COP.

Your agency may controvert (dispute) your entitlement to COP, but must continue pay unless the controversion is based on one of the nine reasons listed in the instructions for item 35.

If you receive COP, but OWCP later determines that you are not entitled to COP, you may either change COP to sick or annual leave or pay the employing agency back for the COP received.

Supervisor

At the time the form is received, complete the receipt of notice of injury and give it to the employee. In addition to completing items 17 through 38, the supervisor is responsible for obtaining the witness statement in item 16 and for filling in the proper codes in shaded boxes a, b, and c on the front of the form. If medical expense or lost time is incurred or expected, the completed form should be sent to OWCP within two working days after it is received.

The supervisor should also submit any other information or evidence pertinent to the merits of this claim.

If the employing agency controverts COP, the employee should be notified and the reason for controversion explained to him or her.

17) Agency name and address of reporting office

The name and address of the office to which correspondence from OWCP should be sent (If applicable, the address of the personnel or compensation office).

18) Duty station street address and zip code

The address and zip code of the establishment where the employee actually works.

29) Was injury caused by third party?

A third party is an individual or organization (other than the injured employee or the Federal government) who is liable for the injury. For instance, the driver of a vehicle causing an accident in which an employee is injured, the owner of a building where unsafe conditions cause an employee to fall, and a manufacturer whose defective product causes an employee's injury, could all be considered third parties to the injury.

31) Name and address of physician first providing medical care

The name and address of the physician who first provided medical care for this injury. If initial care was given by a nurse or other health professional (not a physician) in the employing agency's health unit or clinic, indicate this on a separate sheet of paper.

32) First date medical care received

The date of the first visit to the physician listed in item 31.

35) Does the employing agency controvert continuation of pay?

COP may be controverted (disputed) for any reason; however, the employing agency may refuse to pay COP only if the controversion is based upon one of the nine reasons given below:

a) The disability results from an occupational disease or illness;

b) The employee is a volunteer working without pay or for nominal pay, or a member of the office staff of a former President;

c) The employee is neither a citizen nor a resident of the United States or Canada;

d) The injury occurred off the employing agency's premises and the employee was not involved in official "off premise" duties;

e) The injury was proximately caused by the employee's willful misconduct, intent to bring about injury or death to self or another person, or intoxication;

f) The injury was not reported on Form CA-1 within 30 days following the injury;

g) Work stoppage first occurred six months or more following the injury;

h) The employee initially reported the injury after his or her employment was terminated; or

i) The employee is enrolled in the Civil Air Patrol, Peace Corps, Youth Conservation Corps, Work Study Programs, or other similar groups.

Employing Agency - Required Codes

Box a (Occupation Code), Box b (Type Code), Box c (Source Code), OSHA Site Code

The Occupational Safety and Health Administration (OSHA) requires all employing agencies to complete these items when reporting an injury. The proper codes may be found in OSHA Booklet 2014, Recordkeeping and Reporting Guidelines.

OWCP Agency Code

This is a four-digit (or four digit plus two letter) code used by OWCP to identify the employing agency. The proper code may be obtained from your personnel or compensation office, or by contacting OWCP.

CA-1
(Rev. 3/86)

FEDERAL EMPLOYEE'S NOTICE OF OCCUPATIONAL DISEASE AND CLAIM FOR COMPENSATION, DEPARTMENT OF LABOR FORM CA-2 (Page 1)

Notice of Occupational Disease and Claim for Compensation

U.S. Department of Labor
Employment Standards Administration
Office of Workers' Compensation Programs

Employee: Please complete all boxes 1 - 18 below. Do not complete shaded areas.
Employing Agency (Supervisor or Compensation Specialist): Complete shaded boxes a, b, and c.

Employee Data

1. Name of employee (Last, First, Middle) | 2. Social Security Number

3. Date of birth Mo. Day Yr. | 4. Sex | 5. Home telephone ( ) | 6. Grade as of date of last exposure Level Step

7. Employee's home mailing address (Include city, state, and zip code) Zip Code

8. Dependents
- ☐ Wife, Husband
- ☐ Children under 18 years
- ☐ Other

Claim Information

9. Employee's occupation | a. Occupation code

10. Location (address) where you worked when disease or illness occurred (Include city, state, and zip code)

11. Date you first became aware of disease or illness Mo. Day Yr.

12. Date you first realized the disease or illness was caused or aggravated by your employment Mo. Day Yr.

13. Explain the relationship to your employment, and why you came to this realization

14. Nature of disease or illness | OWCP Use - NOI Code | b. Type code | c. Source code

15. If this notice and claim was not filed with the employing agency within 30 days after date shown above in item #12, explain the reason for the delay.

16. If the statement requested in item 1 of the attached instructions is not submitted with this form, explain reason for delay.

17. If the medical reports requested in item 2 of attached instructions are not submitted with this form, explain reason for delay.

Employee Signature

18. I certify, under penalty of law, that the disease or illness described above was the result of my employment with the United States Government, and that it was not caused by my willful misconduct, intent to injure myself or another person, nor by my intoxication. I hereby claim medical treatment, if needed, and other benefits provided by the Federal Employees' Compensation Act.

Signature of employee or person acting on his/her behalf _____ Date _____

Have your supervisor complete the receipt attached to this form and return it to you for your records.

Any person who knowingly makes any false statement, misrepresentation, concealment of fact, or any other act of fraud to obtain compensation as provided by the FECA or who knowingly accepts compensation to which that person is not entitled, is subject to felony criminal prosecution and may, under appropriate provisions, be punished by a fine or imprisonment, or both.

For sale by the Superintendent of Documents, U.S. Government Printing Office Washington, DC 20402

CA-2
(3/86)

FEDERAL EMPLOYEE'S NOTICE OF OCCUPATIONAL DISEASE AND CLAIM FOR COMPENSATION, DEPARTMENT OF LABOR FORM CA-2 (Page 2)

Official Supervisor's Report of Occupational Disease: Please complete information requested below

Supervisor's Report

19. Agency name, and address of reporting office (Include city, state, and zip code) | OWCP Agency Code

OSHA Site Code

Zip Code

20. Employee's duty station (Street address and zip code) Zip Code

21. Regular work hours From: : ☐ a.m. ☐ p.m. To: : ☐ a.m. ☐ p.m.

22. Regular work schedule ☐ Sun. ☐ Mon. ☐ Tues. ☐ Wed. ☐ Thurs. ☐ Fri. ☐ Sat.

23. Name and address of physician first providing medical care (Include city, state, zip code)

24. First date medical care received Mo. Day Yr.

25. Do medical reports show employee is disabled for work? ☐ Yes ☐ No

26. Date employee first reported condition to supervisor Mo. Day Yr.

27. Date and hour employee stopped work Mo. Day Yr. Time : ☐ a.m. ☐ p.m.

28. Date and hour employee's pay stopped Mo. Day Yr. Time : ☐ a.m. ☐ p.m.

29. Date employee was last exposed to conditions alleged to have caused disease or illness Mo. Day Yr.

30. Date returned to work Mo. Day Yr. Time : ☐ a.m. ☐ p.m.

31. If employee has returned to work and work assignment has changed, describe new duties

32. Was injury caused by third party? ☐ Yes ☐ No If "No," go to item 34.

33. Name and address of third party (Include city, state, and zip code)

Signature of Supervisor

34. A supervisor who knowingly certifies to any false statement, misrepresentation, concealment of fact, etc., in respect to this claim may also be subject to appropriate felony criminal prosecution.

I certify that the information given above and that furnished by the employee on the reverse of this form is true to the best of my knowledge with the following exception:

Name of Supervisor (Type or print)

Signature of Supervisor Date

Supervisor's Title Office phone

CA-2

FEDERAL EMPLOYEE'S NOTICE OF OCCUPATIONAL DISEASE AND CLAIM FOR COMPENSATION, DEPARTMENT OF LABOR FORM CA-2 (Page 3)

Disability Benefits for Employees under the Federal Employees' Compensation Act (FECA)

The FECA, which is administered by the Office of Workers' Compensation Programs (OWCP), provides the following general benefits for employment-related occupational disease or illness:

(1) Full medical care from either Federal medical officers and hospitals, or private hospitals or physicians of the employee's choice.

(2) Payment of compensation for total or partial wage loss.

(3) Payment of compensation for permanent impairment of certain organs, members, or functions of the body (such as loss or loss of use of an arm or kidney, loss of vision, etc.), or for serious disfigurement of the head, face, or neck.

(4) Vocational rehabilitation and related services where necessary.

The first three days in a non-pay status are waiting days, and no compensation is paid for these days unless the period of disability exceeds 14 calendar days, or the employee has suffered a permanent disability. Compensation for total disability is generally paid at the rate of 2/3 of an employee's salary if there are no dependents, or 3/4 of salary if there are one or more dependents.

If an employee is in doubt about compensation benefits, the OWCP District Office servicing the employing agency should be contacted. (Obtain the address from your employing agency.)

For additional information, review the regulations governing the administration of the FECA (Code of Federal Regulations, Title 20, Chapter 1) or Chapter 810 of the Office of Personnel Management's Federal Personnel Manual.

Privacy Act

In accordance with the Privacy Act of 1974 (Public Law No. 93-570, 5 U.S.C. 552a), you are hereby notified that:

(1) The Federal Employees' Compensation Act, as amended (5 U.S.C. 8101, et seq.) is administered by the Office of Workers' Compensation Programs of the U.S. Department of Labor. In accordance with this responsibility, the office receives and maintains personal information on claimants and their immediate families.

(2) The information will be used to determine eligibility for and the amount of benefits payable under the Act.

(3) The information may be used by other agencies or persons in matters relating directly or indirectly to the matter of the claim, so long as such agencies or persons have received the consent of the individual claimant, or complied with the provisions of 20 CFR 10.

(4) Failure to furnish all requested information may delay the process, or result in an unfavorable decision or a reduced level of benefits (disclosure of a social security number is voluntary; the failure to disclose such number will not result in the denial of any right, benefit or privilege to which an individual may be entitled).

Receipt of Notice of Occupational Disease or Illness

This acknowledges receipt of notice of disease or illness sustained by:
(Name of injured employee)

_____

I was first notified about this condition on (Mo., Day, Yr.)

_____

At (Location)

_____

Signature of Official Superior | Title | Date (Mo., Day, Yr.)

_____

This receipt should be retained by the employee as a record that notice was filed.

_____

CA-2
(Rev. 3/86)

FEDERAL EMPLOYEE'S NOTICE OF OCCUPATIONAL DISEASE AND CLAIM FOR COMPENSATION, DEPARTMENT OF LABOR FORM CA-2 (Page 4)

Instructions for Completing Form CA-2

Complete all items on your section of the form. If additional space is required to explain or clarify any point, attach a supplemental statement to the form. In addition to the information requested on the form, both the employee and the supervisor are required to submit additional evidence as described below. If this evidence is not submitted along with the form, the responsible party should explain the reason for the delay and state when the additional evidence will be submitted.

Employee (or person acting on the employee's behalf)

Complete items 1 through 18 and submit the form to the employee's supervisor along with the statement and medical reports described below. Be sure to obtain the Receipt of Notice of Disease or illness completed by the the supervisor at the time the form is submitted.

1) Employee's statement

In a separate narrative statement attached to the form, the employee must submit the following information:

a) A detailed history of the disease or illness from the date it started.

b) Complete details of the conditions of employment which are believed to be responsible for the disease or illness.

c) A description of specific exposures to substances or stressful conditions causing the disease or illness, including locations where exposure or stress occurred, as well as the number of hours per day and days per week of such exposure or stress.

d) Identification of the part of the body affected. (If disability is due to a heart condition, give complete details of all activities for one week prior to the attack with particular attention to the final 24 hours of such period.)

e) A statement as to whether the employee ever suffered a similar condition. If so, provide full details of onset, history, and medical care received, along with names and addresses of physicians rendering treatment.

2) Medical report

a) Dates of examination or treatment.

b) History given to the physician by the employee.

c) Detailed description of the physician's findings.

d) Results of x-rays, laboratory tests, etc.

e) Diagnosis.

f) Clinical course of treatment.

g) Physician's opinion as to whether the disease or illness was caused or aggravated by the employment, along with an explanation of the basis for this opinion. (Medical reports that do not explain the basis for the physician's opinion are given very little weight in adjudicating the claim.)

3) Wage loss

If you have lost wages or used leave for this illness, Form CA-7 should also be submitted.

Supervisor (or appropriate official in the employing agency)

At the time the form is received, complete the Receipt of Notice of Disease or Illness and give it to the employee. In addition to completing items 19 through 34, the supervisor is responsible for filling in the proper codes in shaded boxes a, b, and c on the front of the form. If medical expense or lost time is incurred or expected, the completed form must be sent to OWCP within ten working days after it is received. In a separate, narrative statement attached to the form, the supervisor must:

a) Describe in detail the work performed by the employee. Identify fumes, chemicals, or other irritants or situations that the employee was exposed to which allegedly caused the condition. State the nature, extent, and duration of the exposure,including hours per days and days per week. requested above.

b) Attach copies of all medical reports (Including x-ray reports and laboratory data) on file for the employee.

c) Attach a record of the employee's absence from work caused by any similar disease or illness. Have the employee state the reason for each absence.

d) Attach statements from each co-worker who has first-hand knowledge about the employee's condition and its cause. (The co-workers should state how such knowledge was obtained.)

e) Review and comment on the accuracy of the employee's statement requested above.

The supervisor should also submit any other information or evidence pertinent to the merits of this claim.

Item Explanations Some of the items on the form which may require further clarification are explained below.

14. Nature of the disease or illness
Give a complete description of the disease or illness. Specify the left or right side if applicable (e.g., rash on left leg; carpal tunnel syndrome, right wrist).

19. Agency name and address of reporting office
The name and address of the office to which correspondence from OWCP should be sent (If applicable, the address of the personnel or compensation office).

20. Employee's duty station, street address and zip code
The street address and zip code of the establishment where the employee actually works.

23. Name and address of physician first providing medical care
The name and address of the physician who first provided medical care for this injury. If initial care was given by a nurse or other health professional (not a physician) in the employing agency's health unit or clinic, indicate this on a separate sheet of paper.

24. First date medical care received
The date of the first visit to the physician listed in item 23.

32. Was the injury caused by third party?
A third party is an individual or organization (other than the injured employee or the Federal government) who is liable for the disease. For instance, manufacturer of a chemical to which an employee was exposed might be considered a third party if improper instructions were given by the manufacturer for use of the chemical.

Employing Agency - Required Codes

Box a (Occupation Code), Box b (Type Code), Box c (Source Code), OSHA Site Code
The Occupational Safety and Health Administration (OSHA) requires all employing agencies to complete these items when reporting an injury. The proper codes may be found in OSHA Booklet 2014, Record Keeping and Reporting Guidelines.

OWCP Agency Code
This is a four digit (or four digit plus two letter) code used by OWCP to identify the employing agency. The proper code may be obtained from your personnel or compensation office, or by contacting OWCP.

CA-2
(Rev. 3/86)

CHAPTER IV. EMERGENCY PROCEDURES

2. AIRCRAFT ACCIDENTS/INCIDENTS

A. GENERAL

*These items are not addressed in this manual. Guidelines are contained in Order 4040.9, FAA Aircraft Management Program, and FAA Order 8020.11, Aircraft Accidents and Incidents - Notification, Investigation and Reporting.

CHAPTER IV. EMERGENCY PROCEDURES

3. MOTOR VEHICLE ACCIDENTS

A. GENERAL

When a motor vehicle is involved in an accident, the following forms should be submitted.

*(1) FAA Mishap Report, FAA Form 3900-6. (Reference Chapter IV, Section 1 of this Manual.)

(2) Motor Vehicle Accident Report, Standard Form 91.

(3) If there is bodily injury, fatality and/or damage exceeding $500: Sections XI through XIII of Standard Form 91 are to be filled out by an accident investigator.

(4) If there are witnesses: Statement of Witness, Standard Form 94.

Reference copies of forms at end of this section.

MOTOR VEHICLE ACCIDENT REPORT, STANDARD FORM 91 (Page 1)

MOTOR VEHICLE ACCIDENT REPORT | Please read the Privacy Act Statement on Page 3. | INSTRUCTIONS: Sections I thru IX are filled out by the vehicle operator. Section X, Items 72 thru 82c are filled out by the operator's supervisor. Sections XI thru XIII are filled out by an accident investigator for bodily injury, fatality, and/or damage exceeding $500.

SECTION I - FEDERAL VEHICLE DATA

1. DRIVER'S NAME *(Last, first, middle)*	2. DRIVER'S LICENSE NO./STATE/LIMITATIONS	3. DATE OF ACCIDENT

4a. DEPARTMENT/FEDERAL AGENCY PERMANENT OFFICE ADDRESS	4b. WORK TELEPHONE NUMBER
	( )

5. TAG OR IDENTIFICATION NUMBER	6. EST. REPAIR COST	7. YEAR OF VEHICLE	8. MAKE	9. MODEL	10. SEAT BELTS USED
	$				☐ YES ☐ NO

11. DESCRIBE VEHICLE DAMAGE

SECTION II - OTHER VEHICLE DATA *(Use Section VIII if additional space is needed.)*

12. DRIVER'S NAME *(Last, first, middle)*	13. DRIVER'S LICENSE NUMBER/STATE/LIMITATIONS

14a. DRIVER'S WORK ADDRESS	14b. WORK TELEPHONE NUMBER
	( )

15a. DRIVER'S HOME ADDRESS	15b. HOME TELEPHONE NUMBER
	( )

16. DESCRIBE VEHICLE DAMAGE	17. ESTIMATED REPAIR COST
	$

18. YEAR OF VEHICLE	19. MAKE OF VEHICLE	20. MODEL OF VEHICLE	21. TAG NUMBER AND STATE

22a. DRIVER'S INSURANCE COMPANY NAME AND ADDRESS	22b. POLICY NUMBER
	22c. TELEPHONE NUMBER ( )

23. VEHICLE IS	24a. OWNER'S NAME(S) *(Last, first, middle)*	24b. TELEPHONE NUMBER
☐ CO-OWNED ☐ RENTAL ☐ LEASED ☐ PRIVATELY OWNED		( )

25. OWNER'S ADDRESS(ES)

SECTION III - KILLED OR INJURED *(Use Section VIII if additional space is needed.)*

A

26. NAME *(Last, first, middle)*	27. SEX	28. DATE OF BIRTH

29. ADDRESS

30. MARK "X" IN TWO APPROPRIATE BOXES	31. IN WHICH VEHICLE	32. LOCATION IN VEHICLE	33. FIRST AID GIVEN BY
☐ KILLED ☐ DRIVER ☐ PASSENGER ☐ INJURED ☐ HELPER ☐ PEDESTRIAN	☐ FED ☐ OTHER (2)		

34. TRANSPORTED BY	35. TRANSPORTED TO

B

36. NAME *(Last, first, middle)*	37. SEX	38. DATE OF BIRTH

39. ADDRESS

40. MARK "X" IN TWO APPROPRIATE BOXES	41. IN WHICH VEHICLE	42. LOCATION IN VEHICLE	43. FIRST AID GIVEN BY
☐ KILLED ☐ DRIVER ☐ PASSENGER ☐ INJURED ☐ HELPER ☐ PEDESTRIAN	☐ FED ☐ OTHER (2)		

44. TRANSPORTED BY	45. TRANSPORTED TO

46. Pedestrian

a. NAME OF STREET OR HIGHWAY	b. DIRECTION OF PEDESTRIAN *(SW corner to NE corner, etc.)*	
	FROM	TO

c. DESCRIBE WHAT PEDESTRIAN WAS DOING AT TIME OF ACCIDENT *(Crossing intersection with signal, against signal, diagonally; in roadway playing, walking, hitchhiking, etc.)*

NSN 7540-00-634-4041
Previous edition not usable

91-110

STANDARD FORM 91 PAGE 1 (REV. 2-93)
Prescribed by GSA - FPMR 101-38.6

MOTOR VEHICLE ACCIDENT REPORT, STANDARD FORM 91 (Page 2)

SECTION IV - ACCIDENT TIME AND LOCATION *(Use Section VIII if additional space is needed.)*

47. DATE OF ACCIDENT

48. PLACE OF ACCIDENT *(Street address, city, state, ZIP Code; Nearest landmark; Distance nearest intersection; Kind of locality (industrial, business, residential, open country, etc.); Road description).*

49. TIME OF ACCIDENT
AM
PM

50. INDICATE ON THIS DIAGRAM HOW THE ACCIDENT HAPPENED

Use one of these outlines to sketch the scene. Write in street or highway names or numbers.

a. Number Federal vehicle as 1, other vehicle as 2, additional vehicle as 3 and show direction of travel with arrow.

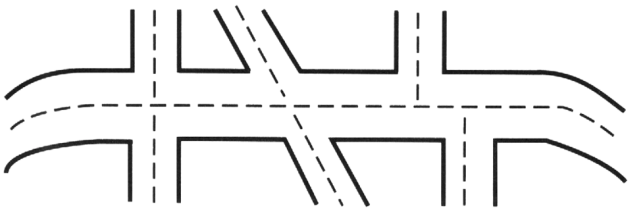
Example: 1 2

b. Use solid line to show path before accident and broken line after the accident 2 2

c. Show pedestrian by

d. Show railroad by

e. Place arrow in this circle to indicate *NORTH*



51. POINT OF IMPACT *(Check one for each vehicle)*

FED	2	AREA
		a. FRONT
		b. R. FRONT
		c. L. FRONT
		d. REAR
		e. R. REAR
		f. L. REAR
		g. R. SIDE
		h. L. SIDE

52. DESCRIBE WHAT HAPPENED *(Refer to vehicles as "Fed", "2", "3", etc. Please include information on posted speed limit, approximate speed of the vehicles, road conditions, weather conditions, driver visibility, condition of accident vehicles, traffic controls (warning light, stop signal, etc.) condition of light (daylight, dusk, night, dawn, artificial light, etc.), and driver actions (making U-turn, passing, stopped in traffic, etc.).*

SECTION V - WITNESS/PASSENGER *(Witness must fill out SF 94, Statement of Witness) (Continue in Section VIII.)*

A
53. NAME *(Last, first, middle)*
54. WORK TELEPHONE NUMBER ( )
55. HOME TELEPHONE NUMBER ( )
56. BUSINESS ADDRESS
57. HOME ADDRESS

B
58. NAME *(Last, first, middle)*
59. WORK TELEPHONE NUMBER ( )
60. HOME TELEPHONE NUMBER ( )
61. BUSINESS ADDRESS
62. HOME ADDRESS

SECTION VI - PROPERTY DAMAGE *(Use Section VIII if additional space is needed.)*

63a. NAME OF OWNER
63b. OFFICE TELEPHONE NUMBER ( )
63c. HOME TELEPHONE NUMBER ( )
63d. BUSINESS ADDRESS
63e. HOME ADDRESS
64a. NAME OF INSURANCE COMPANY
64b. TELEPHONE NUMBER ( )
64c. POLICY NUMBER
65. ITEM DAMAGED
66. LOCATION OF DAMAGED ITEM
67. ESTIMATED COST $

SECTION VII - POLICE INFORMATION

68a. NAME OF POLICE OFFICER
68b. BADGE NUMBER
68c. TELEPHONE NUMBER ( )
69. PRECINCT OR HEADQUARTERS
70a. PERSON CHARGED WITH ACCIDENT
70b. VIOLATION(S)

STANDARD FORM 91 PAGE 2 (REV. 2–93)

MOTOR VEHICLE ACCIDENT REPORT, STANDARD FORM 91 (Page 3)

SECTION VIII - EXTRA DETAILS

SPACE FOR DETAILED ANSWERS. INDICATE SECTION AND ITEM NUMBER FOR EACH ANSWER. IF MORE SPACE IS NEEDED, CONTINUE ITEMS ON PLAIN BOND PAPER.

SECTION IX - FEDERAL DRIVER CERTIFICATION

In compliance with the Privacy Act of 1974, solicitation of the information requested on this form is authorized by Title 40 U.S.C. Section 491. Disclosure of the information by a Federal employee is mandatory as the first step in the Government's investigation of a motor vehicle accident. The principal purposes for using this information is to provide necessary data for legal counsel in legal actions resulting from the accident and to provide accident information/statistics in analyzing accident causes and developing methods of reducing accidents. Routine use of information may be by Federal, State or local governments, or agencies, when relevant to civil, criminal, or regulatory investigations or prosecutions. An employee of a Federal agency who fails to report accurately a motor vehicle accident involving a Federal vehicle or who refuses to cooperate in the investigation of an accident may be subject to administrative sanctions.

I certify that the information on this form *(Sections I thru VIII)* is correct to the best of my knowledge and belief.

71a. NAME AND TITLE OF DRIVER	71b. DRIVER'S SIGNATURE AND DATE

SECTION X - DETAILS OF TRIP DURING WHICH ACCIDENT OCCURRED

72. ORIGIN	73. DESTINATION

74. EXACT PURPOSE OF TRIP

	DATE	TIME *(Circle one)*		DATE	TIME *(Circle one)*
75. TRIP BEGAN		a.m. p.m.	76. ACCIDENT OCCURRED		a.m. p.m.

77. AUTHORITY FOR THE TRIP WAS GIVEN TO THE OPERATOR	78. WAS THERE ANY DEVIATION FROM DIRECT ROUTE
☐ ORALLY ☐ IN WRITING *(Explain)*	☐ NO ☐ YES *(Explain)*
79. WAS THE TRIP MADE WITHIN ESTABLISHED WORKING HOURS	80. DID THE OPERATOR, WHILE ENROUTE, ENGAGE IN ANY ACTIVITY OTHER THAN THAT FOR WHICH THE TRIP WAS AUTHORIZED.
☐ YES ☐ NO *(Explain)*	☐ NO ☐ YES *(Explain)*

81. COMPLETED BY DRIVER'S SUPERVISOR	a. DID THIS ACCIDENT OCCUR WITHIN THE EMPLOYEE'S SCOPE OF DUTY ☐ YES ☐ NO	b. COMMENTS

82a. NAME AND TITLE OF SUPERVISOR	82b. SUPERVISOR'S SIGNATURE AND DATE	82c. TELEPHONE NUMBER
		( )

STANDARD FORM 91 PAGE 3 (REV. 2–93)

MOTOR VEHICLE ACCIDENT REPORT, STANDARD FORM 91 (Page 4)

SECTION XI - ACCIDENT INVESTIGATION DATA

83. DID THE INVESTIGATION DISCLOSE CONFLICTING INFORMATION. ☐ YES ☐ NO *(If "Yes", explain below.)*

84. PERSONS INTERVIEWED

NAME	DATE	NAME	DATE
a.		c.	
b.		d.	

85. ADDITIONAL COMMENTS *(Indicate section and item number for each comment.)*

SECTION XII - ATTACHMENTS

LIST ALL ATTACHMENTS TO THIS REPORT

SECTION XIII - COMMENTS/APPROVALS

86. REVIEWING OFFICIAL'S COMMENTS

87. ACCIDENT INVESTIGATOR	88. ACCIDENT REVIEWING OFFICIAL
a. SIGNATURE AND DATE	a. SIGNATURE AND DATE
b. NAME *(First, middle, last)*	b. NAME *(First, middle, last)*
c. TITLE	c. TITLE
d. OFFICE	d. OFFICE
e. OFFICE TELEPHONE NUMBER ( )	e. OFFICE TELEPHONE NUMBER ( )

*U.S. Government Printing Office: 1994 — 300-892/10018

STANDARD FORM 91 PAGE 4 (REV. 2–93)

STATEMENT OF WITNESS, STANDARD FORM 94 (Page 1)

STATEMENT OF WITNESS (*Attach additional sheets if necessary*)	1. DID YOU SEE THE ACCIDENT?	2. WHEN DID THE ACCIDENT HAPPEN? a. TIME *a.m.* / *p.m.*	b. DATE	FORM APPROVED O.M.B. NUMBER 3090–0118

3. WHERE DID THE ACCIDENT HAPPEN? (*Give street location and city*)

4. TELL IN YOUR OWN WAY HOW THE ACCIDENT HAPPENED

5. WHERE WERE YOU WHEN THE ACCIDENT OCCURRED?

6. WAS ANYONE INJURED, AND IF SO, EXTENT OF INJURY IF KNOWN?

7. DESCRIBE THE APPARENT DAMAGE TO PRIVATE PROPERTY

8. DESCRIBE THE APPARENT DAMAGE TO GOVERNMENT PROPERTY	9. IF TRAFFIC CASE, GIVE APPROXIMATE SPEED OF:
	a. GOVERNMENT VEHICLE *Miles per Hr.*
	b. OTHER VEHICLE *Miles per hr.*

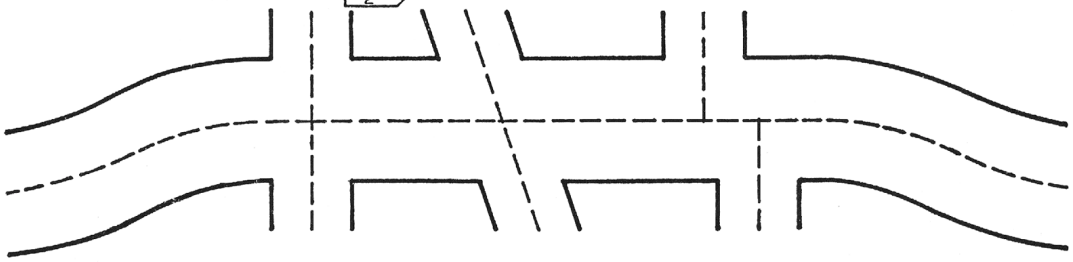
10. GIVE THE NAMES AND ADDRESSES OF ANY OTHER WITNESSES TO THE ACCIDENT (*If known*)

a. NAMES	b. ADDRESSES (*Include ZIP Code*)

WITNESS COMPLETING THIS FORM	11. HOME ADDRESS (*Include ZIP Code*)	12. WITNESS (Print Name)	a. HOME TELEPHONE NO.
		Sign here ►	b. TODAY'S DATE
	13. BUSINESS ADDRESS (*Include ZIP Code*)		TELEPHONE NO.

14. INDICATE ON THE DIAGRAM BELOW WHAT HAPPENED:

1. Number Federal vehicle as 1—other vehicle as 2—additional vehicle as 3, and show direction of travel by arrow (*Example:* → 1 2 ←)
2. Use solid line to show path before accident → 2
   Broken line after accident - - - - - 2
3. Show pedestrian by →○
4. Show railroad by +++++++++++++++
5. Give names or numbers of streets or highways
6. Indicate north by arrow in this circle ○



NSN 7540–00–634–4045
94–105

STANDARD FORM 94 (REV. 2–83)
Prescribed by GSA, FPMR 101–39.8

STATEMENT OF WITNESS, STANDARD FORM 94 (Page 2)

FILE REFERENCE:

This office has been notified that you witnessed an accident which occurred

It will be helpful if you will answer, as fully as possible, the questions on the other side of this letter. Please read the Privacy Act Statement below.

Your courtesy in complying with this request will be appreciated. An addressed envelope, which requires no postage, is enclosed for your convenience in replying.

Sincerely

Enclosure

Use by the public is voluntary. In compliance with the Privacy Act of 1974, the following information is provided: Solicitation of the information requested on this form is authorized by Title 40 U.S.C. Section 491. Disclosure of the information by a Federal employee is mandatory as it is the first step in the Government's investigation of a motor vehicle accident. The principal purposes for which the information is intended to be used are to provide necessary data for use by legal counsel in legal actions resulting from the accident, and to provide accident information/statistics for use in analyzing accident causes and developing methods of reducing accidents. Routine use of the information may be by Federal, State or local governments or agencies, when relevant to civil, criminal, or regulatory investigations or prosecution.

STANDARD FORM 94 BACK (REV. 2–83)

★U.S.GPO:1990-262-081/20180

CHAPTER IV. ACCIDENT REPORTING

4. FAA MISHAP REPORT, FAA FORM 3900-6 (Reference Chapter IV, Section 1)

A. INSTRUCTIONS FOR COMPLETING

(1) General Mishap Data

(a) Report Number: Leave blank.

(b) Class: Leave blank.

(c) Region: List the two letter identifier for the Aeronautical Center - AC

(d) Organization Code: Enter the organizational code. An example is AVN-328.

(e) Unit Name: Enter the work unit of the injured or ill employee.

(f) Date of Mishap: Date the accident occurred, using zeros as necessary, to fill six spaces, e.g., 01/03/98 or 11/22/98.

(g) Location: Describe in detail where the accident occurred. Provide enough information so that someone not involved with the accident could find the location.

(h) Time of Mishap: Provide the time the accident occurred.

(i) Facility Type: If the accident occurred at an AVN Facility, list the building name or hangar number. If the accident did not occur at a facility, list "N/A".

(j) Equipment, Component or Procedure: List the specific component, piece of equipment or procedure that was involved. This is to identify troublesome pieces of equipment or procedures which may pose a hazard to personnel. Examples include: Propeller, Dip tank, Aircraft engine.

If the accident did not involve FAA equipment or procedures, list "N/A".

(k) Weather: When applicable, describe the weather conditions. If not applicable, use "N/A".

(l) Mishap Type Primary: In all cases when an injury or illness occurred "injury or illness" shall be given for the primary mishap type. Select from the following as the primary type of accident which occurred:

1 Injury
2 Illness
3 Motor Vehicle
4 Property Damage
5 Fire
6 Explosion
7 Aircraft
8 Recreation

(m) Mishap Type Secondary: List the subsequent event of the accident, if applicable. You may enter "None". The secondary will be selected from the following:

1 Motor Vehicle
2 Property Damage
3 Fire
4 Explosion
5 Aircraft
6 Recreation

(n) Phase: Give a brief description of the activity or phase of process at the time the accident occurred. Choose from the following:

1 Accident investigation
2 Assembling
3 Backing
4 Boarding
5 Briefing
6 Carrying
7 Cleaning
8 Climbing (ladder, stair, etc.)
9 Closing (door, hatch, drawer, etc.)
10 Constructing
11 Crossing

12 Cutting (sawing, chopping, splitting)
13 Descending
14 Disassembling
15 Disposing
16 Drilling
17 Driving forward (while operating motor vehicle, truck, tug, forklift, etc.)
18 Entering
19 Exercising (aerobics, jogging, etc.)
20 Firefighting
21 Flying (onboard an aircraft)
22 Grinding
23 Hammering
24 Hoisting
25 Inspecting
26 Installing
27 Landing
28 Lifting
29 Machining
30 Opening (door, hatch, window, can, etc.)
31 Operating test equipment
32 Painting
33 Parking
34 Periodic maintenance
35 Preflight
36 Pulling
37 Pushing
38 Reaching
39 Reclining
40 Refueling
41 Riding (car, train, onboard aircraft)
42 Running (not as exercise)
43 Shoveling
44 Sitting
45 Sleeping
46 Smoking
47 Sports
48 Standing/Stopped
49 Taking off
50 Taxiing
51 Training
52 Transferring
53 Turning (vehicle, tug, etc.)

54 Walking
55 Weather Observation
56 Welding
57 Working with Hand Tools (activity not otherwise listed above)
58 Working with Power Tools (activity not otherwise listed above)

(o) Seat Belt: If the use of seat belts is not applicable then so indicate with "N/A". If seat belts were used, respond with a "Y" for yes, and if they were not used, respond with a "N" for no. If it is not known whether or no seat belts were used, respond with a "U" for unknown.

(p) Fatigue: Enter the appropriate letter indicating the extent to which fatigue may have been a factor in the accident.

(q) Drug/Alcohol: Select the appropriate letter for the extent drugs or alcohol may have been factors in the accident.

(r) Total Number Exposed: Give the number of personnel exposed as a result of the accident, i.e., the number of people in the motor vehicle or in a work area exposed to the same conditions at the same time as the person injured or ill.

(s) Narrative of Mishap: Describe the accident to the degree of detail that anyone reading the narrative will know what happened. Be objective and bring out those aspects that describe what the individual was doing that led up to the accident, what happened at the time of the accident, and what subsequent action occurred immediately after the accident.

1 Do not list the name of any individual(s) in this part. When referring to the injured person, use "Subject Named Person (SNP)". For example, "While being assisted by another mechanic, Subject Named Person was performing maintenance on . . ., etc.". This is to protect the privacy of the individual(s), if report narratives are used for discussion during safety meetings or used as examples of accidents.

2 Any pertinent information related to the accident, which cannot be placed in other parts of the form, should be listed in this narrative section.

(t) Corrective Action: Describe what action will be taken to prevent this particular accident from occurring again. Give recommendations to eliminate the hazard(s) for the damage, injury and illness which occurred. It is not sufficient to indicate that the person involved was counseled and cautioned not to repeat the action. If additional training is required, so state. If safety equipment has to be purchased, indicate what equipment, the source(s), when it can be ordered and when it should be in place.

(u) Cause: Provide a full explanation because this is one of the most important parts of the report. More than one cause may be described. Simply listing the category is not sufficient. Causes may be in four categories:

1 Personnel Error: Personnel errors are when people make mistakes or use poor judgment which leads to accidents. Identification of each mistake/error is important, but determining why the mistake was made is more important. Be sure to include a reason for the personnel error. Some reasons why errors are made are: fatigue, state of health, impatience, use of drugs or alcohol. Others are: inattention, forgetfulness, doing something improperly and with negligence. The errors of all people that contributed to the accident should be described.

2 Material or Equipment Failure: Material or equipment failures are those where a part or a whole machine or piece of equipment breaks or fails to operate as expected. It is important to determine the why of such a failure, e.g., faulty design, improper manufacture, inadequate maintenance, installation or operation.

3 Environment or Atmosphere: Environmental and atmospheric factors are those elements such as weather or toxic atmospheres which may have contributed to the accident. Wet pavement on which a vehicle may have skidded cold be a cause; however, it may have been coupled with poor judgment as the driver may have been going too fast for the conditions.

4 Management or Supervisory Error: Management or supervisory error identifies those causes which contribute to an accident and which indicate the failure of management or supervisors to properly protect employees from accident exposure. These causes are almost always indirect, but correcting them is highly important in preventing future accidents. These causes include failure to provide protection equipment or proper training, insufficient procedures or controls over work operations, and inadequate supervision or oversight. Management or supervisory causes can be assessed at all levels within the organization. It is not intended to identify fault for punitive purposes, but to provide additional areas for training or to correct deficiencies where needed.

(v) Reported by: Print the name of the individual who investigated and reported the accident, usually the immediate supervisor of the person(s) involved.

(w) Title of Preparer: Print the title of the person named above.

(x) Report Date: Give the date the accident was reported using six spaces, such as 02/08/98.

(y) Report Complete: Leave blank.

(z) Entered by: Leave blank.

(2) Personnel Data (Second Page/Reverse Side):

(a) Name: Provide the name of the ill or injured person. If there was no injury or illness, but the accident involved a motor vehicle or equipment accident, list the name of the driver or equipment operator under "Operator Name" near the middle of the form.

(b) Social Security Number: Provide the individual's social security number. Do not include spaces, dashes or slashes between the numbers.

(c) Age: Enter the age of the individual.

(d) Sex: Enter the sex of the individual by providing an "F" for female and an "M" for male.

(e) Schedule, Grade and Series: Self-explanatory.

(f) Job Title: Give specific job title of the person injured or involved.

(g) Job Assignment: Give the actual job being performed at the time of the accident. If the individual injured was driving a vehicle, so indicate. Be as specific as possible. Examples:

1 Driver
2 Passenger
3 Troubleshooting
4 Painting
5 Welding

(h) Total Experience: Provide the total experience that the injured or ill individual has in the same general type of work that was being performed at the time of the accident. This may be experience in:

1 Present or current job
2 Driving a vehicle
3 Electronics
4 Painting

Provide the information in a decimal format to express parts of a year, such as:

1 1.5 - to indicate one and one half years.
2 10.75 - to indicate ten and three quarters years.

(i) Total Experience in Type: Provide the total amount of experience that the individual has in the particular type of equipment used, vehicle driven, or activity being performed at the time of the accident. Provide the information in the numerical format as above.

(3) Injury/Illness Data

(a) Injury/Illness: Select the applicable code from the following:

Code	Definition
10	All occupational injuries
21	Occupational skin diseases or disorder
22	Diseases of the respiratory system
23	Respiratory conditions due to toxic agents
24	Poisoning (systemic effects of toxic materials)
25	Disorders due to physical agents (other than toxic materials)
26	Disorders due to repeated trauma
27	Emotion or mental illnesses or disorders
28	Reserved
29	All other occupational illnesses (generally involving biological agents or bacteria)

(b) Nature of Injury/Illness: Provide the exact nature of the illness or injury. It must agree with the code selected above. Do not use medical terms, but work from the following list:

Code	Nature
99	N/A
10	Abrasion Amputation Bites (insect, dog, etc.) Bruise (includes contusion) Burn (chemical, electrical, heat/fire, radiation, scald, sun) Concussion Cut (includes laceration) Dislocation Fracture Hemorrhage Hemorrhoid Hernia Infection Irritation Puncture

	Shock (electrical Sprain (ligament) Sting Strain (muscle) Whiplash
21	Dermatitis Eczema Rash
22	Asbestosis Mesthelioma Lung Cancer
23	Asphyxiation Pharyngitis Pneumonitis
24	Intoxication Poisoning
25	Frostbite Heat Stress Heat Stroke Hypothermia
26	Aero-otitis Bursitis Heatset Tone Hearing Loss Sinusitis Synovitis Ulceration
27	Anxiety Neurosis Shock (state of)
28	Reserved

29	Anthrax Hepatitis Histoplasmosis

(c) Part of Body: Select one of the following to describe the exact area of the body injured:

N/A	Kidney	Auditory System
Ankle	Knee	Circulatory System
Arm	Leg	Digestive System
Back	Liver	Muscular System
Blood	Lungs	Nervous System
Chest	Mouth	Respiratory System
Ear	Neck	
Elbow	Nose	Eye
Pelvis	Face	Perianal
Finger	Rib	Foot
Shoulder	Groin	Skull
Hand	Thumb	Head
Toe	Hip	Tooth
Intestine	Wrist	Jaw

(d) Severity: Choose one of the following:

1 If a death occurred, enter “fatal”.

2 If there were one or more lost work days, not including day of the injury, enter “lost time”.

3 For a minor injury which received one time treatment and subsequent observations such as scratches, cuts, burns, splinters, etc. and does not require medical care (even though the one time treatment and observations were provided by a physician or registered professional personnel), and after this treatment the employee was able to perform all normal duties associated with his/her job enter “first aid”.

4 If the accident did not involve lost work days but the occurrence did result in medical treatment beyond first aid, as described above, enter “no lost time”.

(e) Contaminants: If there was no contaminant, enter "none". If the injury or illness was caused by a chemical product, enter the chemical or trade name or give the hazardous energy source such as heat, cold, noise radiation, etc. Second, give the physical state of the chemical contaminant, e.g., solid, liquid, gas, vapor, dust, fume, mist, smoke.

(f) Actual Days Off: Provide the actual days that the individual was off work. The day of the injury is not counted.

(g) Actual Days Restricted: Provide the actual number of days that the individual was required to be in a restricted work status. The day of the injury is not counted.

(h) CA-1/CA-2 Completed: If a U.S. Department of Labor CA-1 or CA-2 Form was filed as a result of the accident, respond with either "N", "D" or "O", in accordance with the following:

1 N - If there was no injury in this accident, i.e., a non-injury motor vehicle accident, property damage, etc.

2 D - If a CA-1 was filed and medical expenses are incurred or are expected, or the injury resulted in lost time beyond the date or shift in which it occurred, and will be covered by leave, leave without pay or continuance of pay, or if a CA-2 form was filed.

3 O - If a CA-1 form was filed but there was no lost time beyond the date or shift in which the injury occurred and no medical expenses were incurred or are expected.

NOTE: See Federal Injury Compensation Program Supervisor's Desk guide for additional information.

(i) Personnel Cost

Injury or Illness	Civilian	Youth/Student Assistance Program
Fatality	$174,000	$102,000
Permanent total disability*	$146,000	$148,000
Permanent partial disability*	$ 96,000	$ 67,000
Days hospitalized**	$ 375/day	$ 350/day
Lost work day case - for each day away from work	$ 100/day	$ 75/day
Injury greater than first aid, but not involving days away from work (restricted work activity)	$ 80/day	$ 80/day

* Total cost includes lost work day and hospitalized day costs.
**Total cost includes lost work day costs.

(4) Property Data

(a) Government Property: Provide the type of property directly involved or damaged in the accident. For a motor vehicle accident, enter the year, make and model, e.g., 1995 Ford Sedan. For a building or structure, give purpose or use, e.g., hangar, office, shop, etc. For equipment, give the type or name, e.g., arc welder, hand tool, chair, etc.

(b) Government Property ID: Provide specific identification of the property. Give the identification number, building number or serial number. For a motor vehicle, give the license plate number, including the agency holding the property title, e.g., GSA and tag number or DOT and tag number.

(c) Additional Property: Enter the type of additional property or facility directly involved or damaged in the accident, if any. This may be property or another government agency or of a private owner/operator. If the accident was a motor vehicle accident involving a private auto, enter the year, make and model. If not applicable, enter "N/A".

(d) Additional Property ID: Provide specific identification of the additional property. Give building number, serial number or license plate number. Include here the identification of the owner or operator of the additional property involved in the accident, e.g., Smith, PAE 555, for a vehicle owned or operated by Mr. Or Ms. Smith with license number PAE 555.

(e) Government Cost: Enter the cost for replacement or repair of the Government property or equipment. Give estimated cost until actual cost is known.

(f) Additional Property Cost: Enter the cost for replacement or repair of the additional property or equipment. Enter estimated cost until actual cost is known.

(g) Claim: Indicate whether a liability claim against the FAA is expected to be filed for replacement of property or damage and/or medical and punitive damages. Select "Y" for yes, "N" for no, and "U" for unknown.

(h) Operational Days Lost: Provide estimated lost days for the Government equipment or property identified above, not personnel. Enter estimated days initially, then when the equipment, motor vehicle, typewriter, etc., is returned to operational status, enter the actual operational days lost. Start counting the days lost the day after the accident. If there were no operational days lost, enter zero (0).

(i) Operator Name: Provide the name of the individual who was operating the vehicle or equipment when the accident occurred, listing the last name, a comma, the first name and middle initial. Omit the period after the initial and do not include nicknames. Examples:

Smith, Frederick A
Curtis, Joyce P

(j) Series: List the occupational schedule and series of the person operating the Government vehicle or equipment damaged in the accident, e.g., GS0301, WG4749

(k) Total Experience: Provide the total years of directly related experience. If less than one year, enter the nearest tenth of a year, e.g., 0.5, 0.8.

(l) Experience in Type: Give the total years of experience in the same work as engaged in at the time of the accident. If less than one year, enter to the nearest tenth of a year, e.g., 0.5, 0.8. If one year or more, use 1.8, 15.0, etc . Further explanation of total experience and experience in type would be as follows:

If an employee has been a driver of various types of motor vehicles for ten years and has operated a tug for 2 1/2 years and was driving a tug involved in an accident, the total experience driving would be 10.0 and experience in type would be 2.5.

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

This Chapter establishes core policies and work practices for the purchase, handling, storage, use and disposal of hazardous materials and the communication of chemical hazard information to employees. The requirements established in this Chapter apply to all Mike Monroney Aeronautical Center (MMAC) operations. Supervisors and safety representatives at locations outside of the MMAC are requested and authorized to develop implementation procedures that effectively implement these policies and work practices within their facilities and operations.

*1. HAZARD COMMUNICATION PROGRAM

A. PURPOSE

The purpose of this section is to:

(1) Ensure that any solid, liquid or gaseous material that is not considered to be an "article" (e.g., a manufactured aircraft part) is treated as a hazardous material unless and until the Environmental, Occupation, Safety and Health (EOSH) Staff makes a determination to the contrary.

(2) Ensure that the chemical hazards personnel are evaluated.

(3) Ensure that chemical hazard and control information is provided to employees in a timely and complete manner through container labeling, the availability of material safety data sheets (MSDSs) and through employee information and training.

B. HAZARD DETERMINATION

(1) Pre-purchase Evaluation. Except as permitted by the Expedited Chemical Procurement Procedure, the acquisition of any chemical will be evaluated, in accordance with the AVN-300 Chemical Management Plan BEFORE the chemical is made available for use by AVN-300 personnel. This policy also applies to all samples, trial products and similarly obtained materials submitted by vendors or brought into the facility by AVN personnel for functional testing or evaluation.

(2) Chemical Information. The Chemical Expediter (MMAC) and HazMat Coordinator (line stations) are responsible for maintaining the facility Chemical Information List (CIL) and master MSDS files in accordance with Chapter V, Section 12 of this Manual, CIL and MSDS Management.

(3) Review and Approval. The EOSH Staff will review purchase requests and the respective MSDS for any chemical not previously purchased by AVN-300, or whenever made necessary by changes in a chemical's use or hazard data, in order to:

(a) Ensure conformance with chemical management requirements and procedures.

(b) Identify highly hazardous chemicals and recommend less hazardous alternatives, when feasible.

(c) Ensure availability of the chemical's MSDS.

(d) Provide AMP-100A with the identity of the chemical and other required information.

(e) Identify chemical disposal procedures and develop waste profile documents as necessary.

(4) Inspection/Verification. Quality Control Receiving personnel (MMAC) or the HazMat Coordinator (line stations) will inspect all incoming primary containers and packaging, in accordance with Hazardous Material Receiving Procedure, to:

(a) Ensure that the identity of any chemical brought into the facility for use by AVN-300 personnel appears on the CIL.

(b) Ensure the integrity and labeling of each incoming container.

(c) Ensure availability of a MSDS before releasing the chemical for use by the requesting organization.

(d) Quarantine any chemical that does not appear on the CIL, or have a current MSDS on file, until the chemical has been reviewed and approved by the EOSH Staff.

The individual bringing a chemical into the facility is responsible for performing this function for containers not received through QC.

C. CONTAINER LABELING AND HAZARD WARNINGS

(1) Labels

(a) AVN-300 personnel will only use chemicals from containers that are legibly labeled with the identity of the chemical and the appropriate hazard warnings.

(b) Labels must be legible, printed in English and prominently displayed on the container.

(c) The Chemical Expediter (MMAC) and HazMat Coordinator (line stations) will ensure availability of all required container labels in the Tool Room.

(d) AVN-300 personnel shall not intentionally remove or deface any container label.

(2) Label Application. The user of a chemical container is responsible for obtaining a Hazardous Material Information System (HMIS) label to:

(a) Replace any container label that has been removed, defaced or covered.

(b) Properly label any secondary container into which the user transfers a chemical from a labeled container.

(3) Unknown Contents. If the contents of any chemical container are unknown, the user must submit the container for disposal in accordance with requirements established in Section 3 of this Chapter.

(4) Signs and Placards. The Chemical Expediter (MMAC) and HazMat Coordinator (line stations) will ensure that:

(a) Chemical cabinets are properly labeled as to content and hazard.

(b) Areas where chemicals are used or stored are posted with the appropriate hazard warning signs, including accurate National Fire Protection Association (NFPA) 704 placards.

D. MATERIAL SAFETY DATA SHEETS (MSDS)

Material Safety Data Sheets are available for use by any individual who desires detailed information on any chemical used by AVN-300 personnel. Master binders containing an MSDS for each chemical are maintained in the Hangar 9 Stock Room (MMAC) or the location specifically designated for each line station.

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

*2. CHEMICAL MANAGEMENT PLAN

A. PURPOSE

The purpose of this section is to:

(1) Reduce both the hazard and quantity of chemical products purchased, stored, used and disposed by AVN-300 operations

(2) Reduce the costs associated with the purchase, storage and disposal of chemicals.

(3) Prevent pollution by minimizing the generation of hazardous waste.

B. CHEMICAL PROCUREMENT

(1) Authorization. Unless the conditions for an expedited purchase are met, only authorized Aircraft Support Section personnel or HazMat Coordinators may purchase chemicals for use by AVN-300 personnel. The Aircraft Support Section supervisor shall designate one or more individuals to manage the chemical procurement, inventory and disposal process (Chemical Expediter). Each line station supervisor shall designate a HazMat Coordinator to fulfill these functions within their facility.

(2) Purchase Requests. The user or lead mechanic must check current inventory/stock to verify the need for any chemical purchase prior to submitting a purchase request. Once the need for purchase has been determined, the chemical user, lead mechanic and/or supervisor must:

(a) Submit a purchase request to the designated Chemical Expediter in accordance with Chemical Procurement Procedure, or

(b) Execute the Expedited Chemical Procurement Procedure when the conditions for expedited purchase, as described below, have been met.

(3) Chemical Expediter Responsibilities. Chemical Expediters must:

(a) Ensure that any chemical ordered under the standard procedure either appears on the Chemical Information List (CIL) or has been approved by the Environmental Safety Staff.

(b) Submit to the EOSH Staff in a timely manner any Request Order for review of chemicals not previously purchased.

(c) Enter ILM data for chemical purchases and stocking in accordance with established ILM requirements.

(d) Maintain the Chemical Information List and master Material Safety Data Sheet files in accordance with Chapter V, Section 12 of this manual, CIL and MSDS Management.

(4) Expedited Chemical Purchase. When an Aircraft on Ground (AOG) condition exists, lead personnel or supervisors may authorize chemical purchase through Expedited Chemical Procurement Procedure. Expedited procurement can only be authorized when, in the judgment of a lead or supervisory person, mission-critical deadlines cannot be met within the timeframe normally required to execute the standard chemical procurement process.

C. CHEMICAL CONTAINERS AND STORAGE

(1) Designated Storage Areas. Personnel must place chemical containers with a capacity of more than one pint and less than 55 gallons in an approved and designated cabinet when not in use.

(2) Secondary Containers. Chemical users may transfer chemicals from the original shipped container to another container.

(a) Only in small quantities, and

(b) Only when the secondary container is appropriate for the chemical (chemicals may not be transferred to containers that may be used for eating or drinking), and

(c) Only when the secondary container is labeled as to content and hazard before or immediately after the transfer.

(3) Chemical Capability. Chemical users must ensure that incompatible chemicals (e.g., flammables vs. corrosives or oxidizers) are stored in separate containers and cabinets (see the chemical's MSDS for specific information on incompatibility).

(4) Container Closure. Chemical users:

(a) Must ensure containers are tightly closed when not in use and

(b) May transport chemicals ONLY in closed containers with lids/bungs securely in place. This requirement does not apply to buckets and tubs provided the containers are to be emptied immediately after use into an approved waste drum.

D. MANDATORY WORK PRACTICES

(1) Separation from Food and Beverages. Avoid using or storing chemicals in areas designated for the storage or consumption of food or drink and avoid eating, drinking, using tobacco or applying cosmetics in any area where chemicals are stored or used.

(2) Skin Contact. Wash hands and other exposed areas of skin with adequate quantities of warm water and soap (or as otherwise directed by the MSDS) immediately if contaminated by a toxic, irritating or corrosive chemical and before eating, taking a break, or leaving for the day.

(3) Clothing Contamination. Remove all clothing contaminated by a highly toxic, irritating or corrosive chemical and avoid use of contaminated clothing or equipment until they have been properly laundered/decontaminated.

(4) Special Chemical Hazards. Personnel must employ the following specified work practices when using:

(a) Highly toxic chemicals (Reference Chapter V, Section 13, Paragraph A.), including Alodine and Iridite, Alu-Gold, methylene chloride epoxy paints, primers, adhesives and sealants, and polyurethane paints.

(b) Highly flammable liquids and aerosols (Reference Chapter V, Section 13, Paragraph B.), including acetone, acrylic adhesives, aerosol paints and primers, epoxy paints, primers, adhesives and sealants, isopropanol, jet fuel, methanol, methyl ethyl ketone, paint thinners/reducers, polyurethane paints and primers, toluene and xylene.

(c) Corrosive chemicals (Reference Chapter V, Section 13, Paragraph C.), including Alodine, Alu-etch and Iridite.

(d) Reactive chemicals (Reference Chapter V, Section 13, Paragraph D.), including chromic acid (Iridite and Alodine), phosphoric acid (acid etch), isocyanates (polyurethane activators/hardeners) and epoxy activators/hardeners.

(5) Hazardous Material Processes

(a) Fuel System Maintenance (fuel vapor hazard). Personnel involved in fuel tank maintenance and/or maintenance or care of tools and equipment used in fuel tank maintenance must employ the work practice contained in Chapter V, Section 13, Paragraph E.

(b) Aircraft Fuel Servicing (fuel vapor hazard). Personnel involved in fueling and de-fueling aircraft and/or maintenance or care of fuel handling equipment must employ the work practice contained in Chapter V, Section 13, Paragraph F.

(c) Solvent Dip Tanks (organic vapor hazard). Personnel using and/or maintaining dip tanks that contain organic solvents must employ the work practice contained in Chapter V, Section 13, Paragraph G.

(d) Aircraft Survival Equipment (explosives hazard). Personnel handling or servicing explosive/reactive devices used in aircraft survival equipment must employ the work practice contained in Chapter V, Section 13, Paragraph H.

(e) Abrasive Blasting Units (blasting media contaminants hazard). Personnel using and/or maintaining abrasive blasting equipment must employ the work practice contained in Chapter V, Section 13, Paragraph I.

(f) Aircraft Painting Tasks (organic, toxic and flammable vapor hazards). Personnel involved in painting of aircraft components must employ Chapter XVII, Aircraft Painting Operations.

E. HAZARDOUS MATERIAL SHIPPING AND RECEIVING

(1) Authorization. Only designated, authorized and properly trained personnel may receive hazardous materials or prepare packages containing hazardous materials for shipment.

(2) Procedures. Quality Control personnel or other persons receiving any container of a hazardous material must employ the Hazardous Material Receiving Procedure. Persons forwarding any container of a hazardous material to the MMAC Logistics Center (AML) for shipment, must conform to AML pre-shipment requirements.

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

*3. WASTE MANAGEMENT PLAN

A. PURPOSE

The purpose of this section is to:

(1) Ensure that the various controlled regulated waste streams generated by AVN-300 operations are characterized and documented in accordance with MMAC environmental program requirements.

(2) Ensure that hazardous and universal wastes are segregated from ordinary solid waste and managed in accordance with legal requirements and FAA Orders.

(3) Ensure that hazardous and universal wastes are containerized, stored and disposed in accordance with legal requirements and FAA Orders.

B. WASTE CONTAINER LABELING

Personnel handling chemicals and controlled wastes must ensure that:

(1) Chemical and controlled waste containers are legibly labeled in a prominent position on the container.

(2) Handwritten labels are written with permanent ink.

(3) Any container into which any hazardous waste has been transferred is provided with a Hazardous Waste label and a description of the waste.

(4) Any container into which any non-hazardous industrial waste has been transferred is provided with a Non-Hazardous Waste label and a description of the waste.

(5) Containers are tightly closed when not in use with bungs (tight head drums) and the seal/gasket (open head drums) securely in place.

(6) Empty used containers that are retained for future storage of wastes are labeled "EMPTY: Last Contained" and the identity of the product removed from the container.

C. WASTE CONTAINER MANAGEMENT

(1) Container Availability. Supervisors and lead personnel must:

(a) Ensure the availability of containers of the appropriate type and quantity to manage disposal of their organization's controlled wastes.

(b) Ensure that empty containers are stored in the designated area.

(2) Empty Drum Disposal. Supervisors and lead personnel must ensure that empty drums to be discarded are submitted to AMP-100A (MMAC) in accordance with the procedures that apply to the product originally stored in the container.

(3) Designated Locations. Personnel generating controlled wastes must place hazardous waste containers **ONLY** in a designated Satellite Accumulation Point (SAP). Spent aerosol cans and containers of out-of-date, out-of-date and unusable residue may be stored in a cabinet until a designated collection date.

(4) SAP Storage Limit. Personnel placing waste containers at a SAP must ensure that the COMBINED CAPACITY (GROSS VOLUME) OF ALL HAZRDOUS WASTE CONTAINERS PLACED ON ANY CONTAINMENT PALLET **DOES NOT EXCEED** 55 GALLONS (this requirement does **not** apply to the capacity of containers for used oil and petroleum-based hydraulic fluid).

D. SUBMISSION OF WASTE FOR DISPOSAL

(1) Container Preparation. Once a product container (e.g., pressure vessel) is empty or a waste container (e.g., drum or pail) is full or otherwise ready for disposal, the individual responsible for the last use of the container must:

(a) Ensure that the container is sealed and properly labeled.

(b) Place the container on a wooden pallet in the designated holding site (generally the northeast or southeast corner of Hangar 9 or the southwest corner of Hanger 8 or the designated area at each line station).

(c) Complete and submit the Hazardous Waste Turn-in Card to the designated Chemical Expediter before the end of the shift in which the container was labeled and dated.

(2) Wastewater Treatment System. Any individual discharging waste into the MMAC industrial wastewater treatment system, as authorized by a specific waste disposal procedure, must complete and submit the Batch Discharge Log Form to the Chemical Expediter before the end of the shift in which the task was completed.

(3) Form Submittal. The Chemical Expediter will submit the waste disposal forms to AMP-100A for disposal in accordance with the Waste Turn-In Procedure.

E. SHOP TOWEL/RAG USE AND DISPOSAL (MMAC)

(1) Program Description. AVN-300 personnel use three types of shop towels to clean equipment and materials. Each type has a specific purpose and must be disposed in the appropriately designated and labeled container.

(2) Heavy Laundered Towels. Laundered towels (red and gray in color) can be used to clean and remove most chemicals; however, laundered towels cannot be used with alodine, acid etch, paint or methylene chloride solutioins. Receptacles for soiled laundered towels are located near the Stock Room window.

(3) Disposable Rags. Disposable blended fabric rags (white in color) may only be used with alodine and methylene chloride solutions, paints, and light solvents. They can be obtained in the Paint Shop; however, they must be returned to the Paint Shop and segregated for disposal.

(a) Rags contaminated with alodine must be disposed in the container marked "Alodine Rags" in the Paint Prep Shop (Hangar 9, Room 111W).

(b) Rags contaminated with methylene chloride must be disposed in the container marked "Methylene Chloride Waste" in the Paint Shop (Hangar 9, Room 110W).

(c) Rags contaminated with paint and light solvents may be disposed in ordinary waste receptacles but must be segregated from sources of ignition until dry.

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

*4. SPILL PREVENTION PROGRAM

A. PURPOSE. The purpose of this section is to ensure that personnel continuously take all necessary precautions to prevent the spill of any chemical.

B. CONTAINER SPECIFICATIONS

(1) Design. Personnel may ONLY transfer wastes to:

(a) Containers in which the material was originally shipped, or

(b) A new, UN-certified container, as designated by the UN marking on the side or bottom of the container.

(c) A previously used UN-certified container that contains the same chemical as that being transferred.

(2) Compatibility. Personnel handling chemicals and controlled wastes must place wastes only in compatible containers, as specified in the appropriate procedure.

(3) Condition. Personnel may place wastes ONLY in a container that is in good condition without signs of serious damage or leakage.

C. WASTE HANDLING

(1) Waste Transfer. Personnel transferring wastes to containers must:

(a) Handle and dispose of wastes in accordance with procedure established for the material being disposed (see Section 11 of this Chapter, Waste Disposal Procedures).

(b) Avoid mixing different wastes in the same container unless specifically allowed in a chemical-specific waste disposal procedure.

(c) Attend buckets and pans while they are positioned to drain through a funnel into a drum (NOTE: Drum-mounted funnels must be CLOSED when the drum is unattended).

(2) Container Capacity. Personnel transferring any waste into a container must ensure that the material level does not exceed 85% of the container's capacity (see Figure 1, this section).

Drum Capacity	Gross Drum Height	Approximate Head Space at 85% Capacity	Approximate Quantity at 85% Capacity
5-gallons	10 inches	1.5 inches	4.25 gallons
8-gallons	14 inches	2 inches	6.8 gallons
10-gallons	18.75 inches	3 inches	8.5 gallons
16-gallons	20 inches	3 inches	13.6 gallons
20-gallons	21 inches	2.25 inches	17 gallons
30-gallons	27 inches	2.5 inches	26.25 gallons
55-gallons	33 inches	4 inches	48 gallons

Figure 1. Fill Capacity for Various Drums

(3) Chemical Spill. In the event of a spill of any chemical or hazardous waste, personnel must immediately employ the instructions established in Section 5 of this Chapter.

D. SPILL PREVENTION INSPECTIONS

(1) Line Team Self-Inspections

(a) Supervisors will conduct inspections of their respective areas, using the Spill Prevention and Waste Control Checklist or equivalent, during the first and third weeks of each month.

(b) Supervisors will submit the completed checklists or equivalent documentation to the Environmental and Occupational Safety and Health (EOSH) Staff for review no later than end of the week following the inspection.

(c) Supervisors may delegate and rotate responsibility for performing the inspection among personnel in their organization provided they ensure that the inspections are conducted in a timely manner.

(2) EOSH Inspections

(a) The EOSH Staff will conduct an inspection of base maintenance facilities during the last week of each month.

(b) The EOSH Staff will ensure that an inspection is conducted at each line station by an EOSH professional at least once each year.

(3) Inspection Results

(a) Supervisors will ensure the correction of all deficiencies identified during any given inspection prior to the next regularly scheduled inspection.

(b) The EOSH Staff will retain the completed inspection checklists in accordance with TI 4100.26 requirements.

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

*5. SPILL RESPONSE PLAN

A. PURPOSE

This section is to ensure:

(1) Adequate preparations are made at each facility for response to a spill of petroleum products or hazardous materials.

(2) Timely and appropriate reaction to the spill of any petroleum product or hazardous chemical.

B. SPILL RESPONSE EQUIPMENT

(1) Location and Availability. Supervisors, lead personnel, the Chemical Expediter (MMAC) and HazMat Coordinator (line stations) shall ensure that:

(a) Adequate types and quantities of spill response equipment and materials are available to work areas where spills of oil and/or hazardous materials may occur.

(b) Oil and hazardous chemical users are able to identify the location of the nearest spill response equipment, eyewash station and emergency shower whenever they are working such materials.

(2) Inspection. The inspections required by Section 4 of this Chapter shall address the availability and condition of spill response equipment and materials.

C. SPILL REPORTING

(1) Spill Reporting. Any person who witnesses an oil or hazardous chemical spill must immediately report the incident by calling the facility's emergency line (4-3444 at the MMAC; 911 in other facilities) then contact their immediate supervisor. The supervisor will report the incident to EOSH Staff.

(2) Definition. For purposes of this program, an oil or chemical spill is defined as:

(a) Any quantity of oil or a hazardous chemical that contaminates the soil or enters any storm water drain, industrial wastewater drain or the sanitary sewer system (except as specifically authorized by the AVN-300 Waste Management Plan, Section 3 of this Chapter).

(b) Any amount of a hazardous chemical that exceeds the reportable quantity as listed on the chemical's specific waste management procedure (see Section 3 of this Chapter).

D. SPILL CONTROL AND COUNTERMEASURES

(1) Procedures. The HazMat Coordinator at each AVN-300 facility must make adequate preparations for potential chemical spills, including:

(a) Establishing emergency contact information.

(b) Coordination with an outside source for response to a major spill (a spill that may expose personnel to a serious fire or respiratory hazard).

(c) Identification of chemicals that may be spilled, their locations and potential spill quantity.

(d) Written procedures, as required, that ensures a timely and appropriate response to a spill.

(e) Availability of adequate types and quantities of spill response equipment and materials.

(f) Drills, as necessary, that ensure a timely and appropriate response to a spill.

(2) Countermeasures. In the event of a spill to which AVN-300 personnel can **SAFELY** take defensive measures (i.e., no condition involving serious fire or respiratory hazard), all available personnel must take all necessary actions to prevent **ANY** chemical from entering:

(a) Any storm water drain (typically all outside drains and channels).

(b) Any sanitary sewer system (typically any lavatory, toilet or floor drain).

(c) Any industrial wastewater treatment system (applies to the MMAC interior hangar floor drains, Paint Shop discharge points and NDT discharge points).

(3) Minor Spill. In the event that a spill of oil or a hazardous chemical does not exceed the chemical's reportable quantity or potentially involve exposure to a serious fire or respiratory hazard, available personnel must:

(a) Take immediate action, using designated spill response equipment, to remove all spilled material.

(b) Decontaminate affected environmental surfaces and equipment in accordance with instructions provided on the specific disposal procedure for the spilled material.

(4) Major Spill. In the event of a chemical spill in excess of the chemical-specific reportable quantity or that may expose personnel to a serious fire or respiratory hazard, personnel must:

(a) Move away from the area of the spill and keep others from walking into the area.

(b) Implement emergency spill response procedures.

(c) Remain out of the hazardous chemical spill area until the hazardous material spill response team clears the area for occupation.

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

*6. EMPLOYEE TRAINING

A. REQUIREMENT

Supervisors and lead personnel must ensure that all personnel on their team receive, in a timely manner, the applicable training specified in Section 9 of this Chapter.

B. RECORDS

Supervisors and lead personnel must ensure that records of personnel participation in EOSH training are submitted to the Division office in a timely manner.

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

*7. DEFINITIONS

A. BIOHAZARDOUS WASTE

For purposes of the AVN-300 Environmental Program, is any container or material containing or contaminated with human blood or other potentially infectious body fluids.

B. CHEMICAL INFORMATION LIST (CIL)

Is a comprehensive list of chemicals, including the chemicals' trade names, common names and typical uses by AVN-300 personnel, that is approved for use at the facility for which the list has been developed.

C. CHLOROFLUOROCARBON (CFC)

Is a class of chemical compounds that contain carbon, fluorine and chlorine. The requirements in this document apply to those chlorofluorocarbon refrigerants that are used in aircraft air conditioning systems and are subject to regulation by the US Environmental Protection Agency and/or the Oklahoma Department of Environmental Quality.

D. CONTROLLED WASTE

Is any one of four types of waste that cannot be disposed as an ordinary solid waste, including:

(1) Hazardous waste (i.e., chemicals and containers or other materials contaminated with a hazardous chemical);

(2) Non-hazardous industrial waste (e.g., pressurized containers that have not contained a hazardous chemical);

(3) Universal waste (i.e., spent batteries, mercury-containing thermostats or thermostat components, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium and metal halide lamps); and

(4) Used oil (petroleum-based hydraulic fluid).

E. CORROSIVE CHEMICALS

Are materials that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. Examples used in AVN-300 operations include Alodine; Alu-etch, Iridite.

F. HAZARDOUS WASTE

For purposes of the AVN-300 Environmental Program, is any waste or waste stream controlled by the MMAC Office of Facility Management as a hazardous waste. Any chemical waste should be considered a hazardous waste until it has been evaluated for hazardous characteristics and a waste profile has been submitted to the MMAC Office of Facility Management. Hazardous wastes MUST NOT be disposed in ordinary solid waste receptacles/containers.

G. HIGHLY FLAMMABLE CHEMICALS

Are materials that have a flammability hazard rating of 2, 3 or 4 and that have the following characteristics:

(1) Materials which will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature and which will burn.

(2) Liquids and solids that can be ignited under almost all ambient temperature conditions.

(3) Aerosols that are labeled as "flammable".

Examples used in AVN-300 operations include acetone; acrylic adhesives; aerosol paints and primers; epoxy paints, primers, adhesives and sealants; isopropanol (IPA) ; jet fuel; methanol; methyl ethyl ketone (MEK); paint thinners/reducers; polyurethane paints and primers; toluene; xylene.

H. HIGHLY TOXIC CHEMICALS

Are materials that have a health hazard rating of 3 or 4 and that have the following characteristics:

(1) Materials which on very short exposure could cause death or major residual injury even though prompt medical treatment was given.

(2) Materials which on short exposure could cause serious temporary or residual injury even though prompt medical treatment were given.

Examples used in AVN-300 operations include Alodine; Alu-Gold; dichloromethane (paint stripper); epoxy paints, primers, adhesives and sealants; Iridite; polyurethane paints.

I. MATERIAL SAFETY DATA SHEETS (MSDS)

Is a document that lists the chemical(s) and common name used on the label, physical and health hazards, precautions for safe handling and use, emergency and first aid procedures, name, address and telephone number of manufacturer or distributor who can provide additional information, if necessary.

J. ORDINARY SOLID WASTE

For purposes of the AVN-300 Environmental Program, is any waste not regulated or controlled as a hazardous waste, non-hazardous industrial waste, used oil and hydraulic fluid, or universal waste.

K. OUT OF SPEC/OUT-OF-DATE/UNUSABLE RESIDUAL WASTES

Are any hazardous chemicals that are deemed to be waste by specification deficiency, by expired shelf life, or as residual quantities that cannot be used for their intended purpose. At the time a hazardous material is determined to be unusable for its intended purpose, the chemical is immediately classified as a hazardous waste.

L. REACTIVE CHEMICALS

Are materials that have a reactivity hazard rating of 1, 2, 3 or 4 and that have the following characteristics:

(1) Materials which are readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures (Reactivity rating of 4).

(2) Materials that are capable of detonation or explosive reaction, but require a strong initiating source, or that must be heated under confinement before initiation, or react explosively with water (Reactivity rating of 3).

(3) Materials that are normally unstable and readily undergo violent chemical changes but do not detonate; also materials that may react with water violently, or that may form potentially explosive mixtures with water (Reactivity rating of 2).

(4) Materials that are normally stable, but that can become unstable at elevated temperatures and pressures, or that may react with water with some release of energy but not violently (Reactivity rating of 1).

AVN-300 does not currently use any chemical with a reactivity rating greater than 1. Examples of reactive chemicals with lesser ratings that are used in AVN-300 operations include chromic acid (Iridite and alodine) phosphoric acid (acid etch) isocyanates (polyurethane hardeners/activators), and epoxy hardeners/activators.

M. SATELLITE ACCUMULATION POINT (SAP)

For purposes of the AVN-300 Environmental Program, is a designated and heavily regulated location for the accumulation/storage of hazardous wastes.

N. UNIVERSAL WASTE

For purposes of the AVN-300 Environmental Program, includes waste batteries (alkaline, lead-acid, nickel-cadmium, lithium) metallic mercury ampules within or removed from a thermostat, and waste lamps (fluorescent, high-intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide).

O. USED HYDRAULIC FLUIDS

Is any petroleum-based hydraulic or transmission fluid. **NOTE**: Skydrol is treated as a hazardous waste.

P. USED OIL

Is any petroleum-based engine oil (does not include oil from refrigeration units).

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

*8. REGULATIONS, ORDERS, REQUIREMENTS AND STATUTES

A. GENERAL

The following Regulations, Orders, Requirements and Statutes are applicable to the Aircraft Maintenance and Engineering Division, AVN-300, Environmental and Safety Plan:

(1) Occupational Safety and Health Administration (OSHA) Regulations:

(a) 29 CFR 1910, Subpart H (Hazardous Materials), Sections 106, 107, 109, 120 and 125.

(b) 29 CFR 1910, Subpart J (General Environmental Controls), Section 141, 144 and 145.

(c) 29 CFR 1910, subpart Z (Toxic and Hazardous Substances), Sections 1000, 1025, 1030, 1052 and 1200.

(d) 29 CFR 1960, Basic Program Elements for Federal Employees.

(2) Environmental Protection Agency (EPA) Regulations:

(a) 40 CFR, Subchapter C (Air Programs) Part 82 (Protection of Stratospheric Ozone)

(b) 40 CFR, Subchapter D (Water Programs), Parts 112, 116 and 117.

(c) 40 CFR, Subchapter I (Solid Wastes), Parts 260, 261 and 262.

(d) 40 CFR, Subchapter J (Emergency Planning & Community Right-to-Know), Parts 302, 355, 370 and 372.

(3) Department of Transportation (DOT) Regulations:

(a) 49 CFR, Subchapter C (Hazardous Materials Regulations) Parts 171, 172, 173 and 175.

(4) Federal Aviation Administration (FAA) Orders and Requirements:

(a) ND 1050.10B, Prevention, Control and Abatement of Environmental Pollution.

(b) ND 1050.18, Chlorofluorocarbons and Halon Use at FAA Facilities.

(c) ND 3900.19B, Occupational Safety and Health Program.

1 Chapter 17 (Bloodborne Pathogens).
2 Chapter 19 (FAA Hazard Communication Program).
3 Chapter 25 (FAA Personal Protective Equipment).

(5) Oklahoma Department of Environmental Quality (ODEQ) Statues:

(a) O.S.S. 252:020 (Emergency Planning and Community Right-to-Know).

(b) O.S.S. 252:100 (Air Pollution Control).

(c) O.S.S. 252:205 (Hazardous Waste Management).

(6) Mike Monroney Aeronautical Center (MMAC) Orders and Requirements:

(a) AC 3900.19, Occupational Safety and Health Program.

(b) MMAC Waste Generator Management Procedures.

(c) MMAC Pollution Prevention Plan.

(d) Industrial Wastewater Pretreatment System.

(e) Storm Water Pollution Prevention Plan.

(f) AC 1050.4A, Spill Prevention and Response Plan.

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

*9. HAZMAT INFORMATION AND TRAINING REQUIREMENTS

A. GENERAL

The Aircraft Maintenance and Engineering Division (AMED), AVN-300 Training Program will provide appropriate Hazmat training to personnel as required by Regulation, Order, Requirements and Statutes (Reference Section 8 of this Chapter).

B. TRAINING

Training will include the following courses for personnel, as indicated on Figure 1 of this Section.

(1) Basic Hazard Communication

(a) Application

This course addresses OSHA (29 CFR 1910.1200) and FAA/MMAC (FAA Order 3900.19b) general hazard communication training requirements. AVN-300 supervisors must ensure that ALL employees complete Basic Hazard Communication training before assignment to any task involving the use of a hazardous chemical.

(b) Objective

Upon completion of this course, the participant will be able to locate the written AVN-300 Hazard Communication Program, the Chemical Information List (CIL) and applicable material safety data sheets (MSDS). Identify the requirements of OSHA's Hazard Communication Standard, including:

1 The definition of flammable (including flashpoint and flammability limits), hazardous chemical, hazard warning, health hazard and physical hazard.

2 Hazard communication program requirements.

3 Labeling and hazard warning requirements.

4 Material safety data sheet contents and organization.

5 Employee information and training.

6 Interpret and apply Hazardous Material Information System (HMIS) labeling information and symbols.

7 Identify the areas where hazardous chemicals are used.

8 Identify the methods and observations by which hazardous chemicals can be detected.

9 Identify the hazard control strategies for anticipated exposures, including work practices, ventilation, ignition source control and use of personal protective equipment.

10 Apply the chemical management and waste management policies and practices from TI 4100.26, Chapter V, that are relevant to their work assignments.

11 Implement chemical spill reporting and emergency response procedures.

(c) Training Method

1 Classroom and/or Web or Computer Based.

(d) Training Frequency

1 Initial and at two year intervals.

(2) Task Specific Hazard Information and Training

(a) Application

This requirement addresses specific OSHA (29 CFR 1910.1200) and FAA/MMAC (FAA Order 3900.19b) hazard communication training requirements. AVN-300 Supervisors must ensure that employees who will use hazardous chemicals or work in areas where hazardous chemicals will be used receive information and training on the hazardous materials in their work area:

1 At the time of their initial assignment; and whenever:

a Any operation in their work area where hazardous chemicals are present;

b Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as visual appearance or odor);

c Measures personnel can take, such as appropriate work practices, personal protective equipment and emergency procedures to protect themselves from chemical hazards.

(b) Objective

Upon completion of this course, the participant will be able to:

1 List the most common hazards of the chemicals to which they will be exposed in their work area(s).

2 Determine any appropriate hazard controls that apply to chemical exposures they may encounter in their work area(s).

(c) Training Method

1 On the Job Training (OJT) provided by Lead and/or Supervisory personnel

(d) Training Frequency

1 Initial and As Required.

(3) Chemical Procurement Training

(a) Application

This requirement addresses AVN-300 chemical procurement procedures established for individuals assigned the responsibility to purchase chemicals. The Aircraft Support Section supervisor must ensure that designated Chemical Expediter(s) receives information and training on AVN-300 chemical procurement policies and procedures.

(b) Objective

Upon completion of this course, the participant will be able to:

1 Apply the AVN-300 chemical procurement procedures in purchasing chemical products,.

2 Enter the correct information for product ordering in the ILM database.

(c) Training Method

1 On the Job Training (OJT) provided by Lead and/or Supervisory personnel.

(d) Training Frequency

1 Initial and As Required.

(4) Spill Prevention and Response

(a) Application

This course addresses the OSHA HAZWOPER First Responder, Operations Level Requirements (29 CFR 1910.120) and the MMAC Spill Prevention and Response Plan (AC Order 1050.4A). AVN-300 supervisors must ensure that all personnel who handle, transfer or transport hazardous materials complete Spill Prevention and Response Training:

1 Before assignment to any task involving the handling of a hazardous chemical.

(b) Objective

Upon completion of this course, the participant will be able to:

1 Identify the basic pollution control laws and standards applicable to their work assignment and locate sources of information for spill prevention and response requirements.

2 Identify the components and goals of the MMAC's Storm Water Pollution Prevention Program.

3 Apply the hazardous material storage and use policies and work practices that are relevant to their work assignments.

4 Apply the spill response procedure applicable to the chemicals they may handle.

5 Locate and use spill response and control equipment.

(c) Training Method

1 Classroom and/or Web or Computer Based

(d) Training Frequency

1 Initial and at two year intervals.

(5) Chemical Receiving and Shipping

(a) Application

This course addresses training requirements established in the USDOT Hazardous Materials Regulations for personnel involved in shipping and receiving of hazardous materials. The Quality Control (QC) Section supervisor must ensure that QC Receiving personnel complete the Chemical Receiving and Shipping Course before assignment to any task involving the receipt or shipment of a hazardous chemical.

(b) Objective

Upon completion of this course, the participant will be able to:

1 Interpret the applicable USDOT requirements for packaging, marking, labeling and placarding hazardous materials used in AVN-300 operations.

2 Properly inspect shipping containers for signs of damage or leaks.

3 Don the appropriate protective equipment and take the necessary response actions regarding a leaking hazardous materials container.

4 Safety-related information not covered in Task-specific Hazard Communication Training.

5 Locate and use the MMAC and USDOT Emergency response and reporting requirements.

6 Apply the applicable AVN-300 handling procedures for hazardous material containers/packages.

(c) Training Method

1 Classroom

(d) Training Frequency

1 Initial and at three year intervals.

(6) Waste Management

(a) Application

This course addresses EPA hazardous waste regulations and the MMAC Hazardous Waste Management Procedures. AVN-300 supervisors must ensure that all personnel who handle, transfer or transport hazardous materials complete the Waste Management Course before assignment to any task involving the use of a hazardous chemical.

(b) Objective

Upon completion of this course, the participant will be able to:

1 Identify common waste management deficiencies.

2 Describe the potential hazards to personnel and the environment presented by hazardous wastes.

3 Describe the basic AVN-300 waste management policies.

4 Locate relevant sources of information on hazardous waste management requirements applicable to their work assignment.

5 Apply the waste management procedures applicable to their work assignments.

6 Complete and apply the appropriate waste container labels.

7 Properly complete and submit the waste turn-in card.

(c) Training Method

1 Classroom and/or Web or Computer Based.

(d) Training Frequency

1 Initial and Annually

(7) Wastewater Treatment System Discharge Training

(a) Application

This course addresses the MMAC's Industrial Wastewater Pretreatment System user guidelines. AVN-300 supervisors must ensure that all personnel who handle, transfer or transport hazardous materials complete the Waste Management Course before assignment to any task involving the use of hazardous chemicals.

(b) Objective

Upon completion of this course, the participant will be able to:

1 Apply the wastewater treatment system discharge procedure applicable to their work assignment.

2 Complete and submit the Batch Discharge Log Form.

(c) Training Method

1 On the Job Training (OJT) provided by Lead and/or Supervisory personnel.

(d) Training Frequency

1 Initial and annually.

C. RELEVANT TRAINING

Relevant training received from a previous employer or other source may be used to satisfy the requirements, provided a current record of training is obtained from the HAZMAT employees' previous employer.

D. RECORDKEEPING

A record of current training, inclusive of the preceding three years, shall be created and retained by the HAZMAT employer for as long as that employee is employed by that employer as a HAZMAT employee and for 90 days thereafter. The record shall include:

(1) The HAZMAT employee's name.

(2) The most recent training completion date.

(3) A description, copy or the location of the training materials used to meet the requirements.

(4) The name and address of the person providing the training.

(5) Certification that the HAZMAT employee has been trained and tested.

E. TRAINING OF MANAGERS AND SUIPERVISORS

AVN-300 shall provide occupational safety and health training for Oklahoma City, Oklahoma supervisory employees that include:

(1) Supervisory responsibility for providing and maintaining safe and healthy working conditions for employees.

(2) The AVN-300 environmental safety program.

(3) Environmental and safety standards applicable to workplaces.

(4) Procedures for reporting hazards.

(5) Procedures for reporting and investing allegations of reprisal.

(6) Procedures for the abatement of hazards, as well as other appropriate rules and regulations.

F. TRAINING OF ENVIRONMENTAL AND SAFETY SPECIALISTS

Environmental and safety specialists will be provided training through courses, field study and other formal learning experiences to prepare them to perform the necessary technical monitoring, consulting, testing, inspecting, designing and other tasks related to program development and implementation, as well as hazard recognition, evaluation and control, equipment and facility design, standards, analysis of accident, injury and illness data and other related tasks. AVN-300 shall implement career development programs for their environmental and occupational safety and health specialists to enable the staff to meet present and future program needs of the organization.

G. TRAINING OF COLLATERAL DUTY SAFETY AND HEALTH PERSONNEL AND MEMBERS OF THE ENVIRONMENTAL AND SAFETY COMPLIANCE COMMITTEE

On appointment of an employee to a collateral duty position or to the Environmental and Safety Compliance Committee, AVN-300 shall provide training for collateral duty safety and health personnel and all members of certified occupational safety and health committees commensurate with the scope of their assigned responsibilities. Such training shall include:

(1) The agency occupational safety and health program.

(2) Section 19 of the Occupational Safety and Health Act; Executive Order 12196.

(3) Procedures for the reporting, evaluation and abatement of hazards.

(4) Procedures for reporting and investigating allegations of reprisal, the recognition of hazardous conditions and environments.

(5) Identification and use of occupational safety and health standards and other appropriate rules and regulations.

H. TRAINING OF EMPLOYEES AND EMPLOYEE REPRESENTATIVES

Training will be provided for representatives of employee labor organization groups that are recognized by the agency. The training shall include both introductory and specialized courses and materials that will enable the group to function appropriately in ensuring safe and healthful working conditions and practices in the workplace and enable them to effectively assist in conducting workplace safety and health inspections. Their rights and responsibilities shall be emphasized.

FIGURE 1. COURSE TRAINING APPLICABLE TO AVN-300 PERSONNEL

Employee Classification	Basic HazCom	HazCom Task	Chemical Procurement	Spill Prevention	Chemical Receiving	Waste Management	Wastewater Discharge
Division Management Staff - 300	●						
Resource Management Staff - 303	●						
Supervisor – Aircraft Support	●		●	●	●	●	
Logistics Management Specialist	●	●	○	○	○	○	
Supply Technician	●	●	○	○	○	○	
Program Analyst	●	●			●		
Branch Managers	●						
Line & Base Maintenance – 310 & 330							
Administrative Staff	●						
Supervisor – Maintenance & Mod.	●			●	●	●	
Supervisor – Line Station Maintenance	●			●	●	●	
Supervisor – Maintenance & Intnl Support	●			●	●	●	
Supervisor – Accessories & Test Equip	●			●	●	●	
Aerospace Engineering Technician	●	●		●	●	●	○
Lead Aerospace Engineering Tech.	●	●		●	●	●	○
Aerospace Eng Team Coordinator	●	●		●	●	●	○
Electronics Technician	●	●		●	●	●	
Lead Electronics Technician	●	●		●	●	●	
Logistics Management Specialist	●	●	○		○	○	
Quality Assurance – 320							
Administrative Staff	●						
Supervisor – Quality Control	●				●	●	
Quality Control Staff	●	●					○
QC Receiving Staff	●	●	●		●	●	
Supervisor – Program Standards	●						
Program Standards Staff	●						
Engineering – 340							
Administrative Staff	●						
Supervisor – Avionics Engineering	●						
Avionics Engineering Staff	●	●					
Supervisor – System & Airframe	●						
System & Airframe Staff	●	●					

● – Training applies to all individuals in the employment classification.
○ – Training requirement applies to individuals with assigned responsibilities addressed by the listed training program.

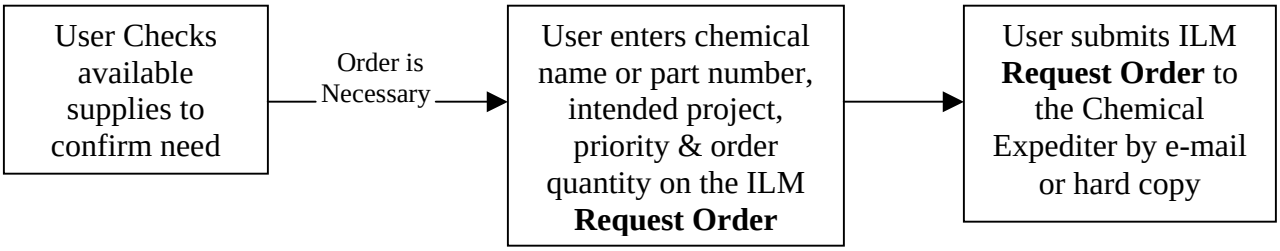
*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

*10. CHEMICAL MANAGEMENT PROCEDURES

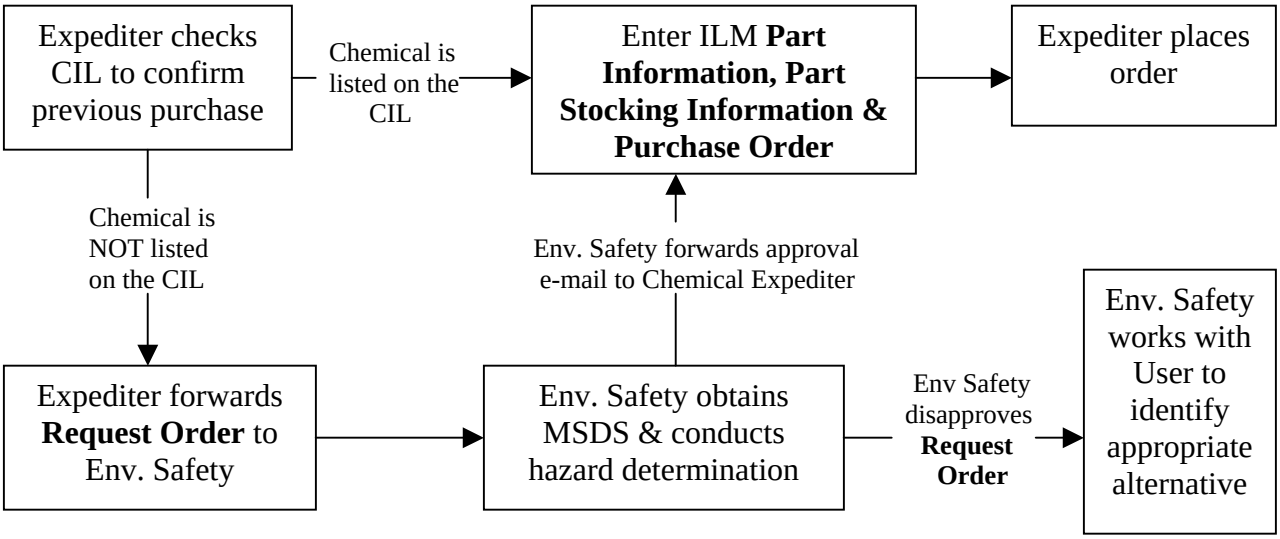
This Section contains Chemical Procurement, Expedited Chemical Procurement, Hazardous Material Receiving and ILM Chemical Data Entry Procedures applicable to Aircraft Maintenance and Engineering Division, AVN-300, personnel.

A. CHEMICAL PROCUREMENT PROCEDURE

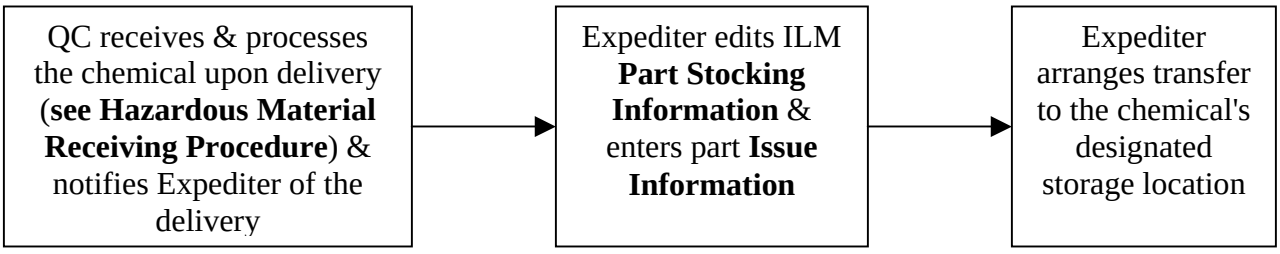
(1) Chemical Ordering Procedure



(2) Order Processing Procedure



(3) Chemical Stocking Procedure



B. EXPEDITED CHEMICAL PROCUREMENT PROCEDURE

Lead or supervisory personnel may authorize direct purchase of a chemical product when the following conditions are met:

(1) The authorizing individual must immediately forward to the Environmental Safety Staff an e-mail or hardcopy message that includes:

(a) The name of the chemical;

(b) A description of the chemical and container;

(c) The quantity purchased and quantity used;

(d) The chemical's intended use;

(e) The location of any residual product remaining after completion of the critical task; and

(f) Specific conditions that justified use of the expedited procedure.

(2) The authorizing individual must:

(a) Limit the quantity purchased to the amount required for the immediate circumstance.

(b) Ensure that a Material Safety Data Sheet (MSDS) is obtained upon receipt of the chemical product.

(c) Immediately forward a copy of the MSDS to the Environmental Safety Staff.

(d) Communicate the appropriate information and hazard warnings to the person(s) receiving and using the chemical product.

(e) Ensure the person receiving the chemical product inspects the container and confirms container integrity and proper labeling.

C. HAZARDOUS MATERIAL RECEIVING PROCEDURE

Upon delivery of a hazardous material/chemical product, the Quality Control (QC) Receiving Inspector will:

(1) Check the shipping container to ensure integrity of the container before accepting the delivery.

(2) Refuse delivery of any chemical container or package with visible signs of leakage or external contamination by a hazardous material.

(3) Refuse delivery of any chemical container that is not labeled as to content and hazard warning (either D.O.T. or consumer product warnings).

(4) Check the Chemical Information List (CIL) to ensure the availability of a material safety data sheet before accepting the delivery.

(5) Quarantine any chemical that has not received ESH approval in a holding area designated by the QC supervisor.

(6) Quarantine chemicals for which ILM data have not been appropriately entered and notify the purchaser of the deficiency.

(7) Maintain chemical quarantine of any chemical until all approval and data issues are resolved.

(8) Enter ILM **Receiving for Purchase** data. (Reference Paragraph D of this section).

(9) Notify the Chemical Expediter of the chemical delivery and disposition of the product container(s).

D. ILM CHEMICAL DATA ENTRY

(1) Request Order Entries

	Category	Entry Description	Example
1	Part Number	Part Number	N/A
2	Description	If the chemical has not been ordered previously and no part number exists for the chemical, enter the chemical's common or trade name.	TKS deicing fluid
3	Priority	Materials must be listed as AOG before the expedited purchase procedure can be initiated.	N/A

(2) Part Information Entries

	Category	Entry Description	Example
1	Unit of Issue	Select the appropriate code.	N/A
2	Description	Enter the chemical's common or trade name. Include the form (liquid, aerosol, solid, gas) in parentheses following the chemical description.	TKS deicing fluid (liquid)
3	Manufacturer	Enter the chemical manufacturer name.	PRC-DeSoto
4	Category	Enter "Chemical Inventory" for all chemical purchases.	N/A
5	NSN	Enter the national stock number if available.	xxxx-xx-xxx-xxxx
6	Hazmat Code	Select the hazard code (see Figure 1 of this section) for the chemical & HMIS code separated by "equal sign". Note: This information will be posted by ESH upon approval. A chemical may have more than one hazard code.	1-2-0
7	Weight	Enter the container volume.	55
8	U/M	Enter the unit of measure for the volume specified above (e.g., pounds, fluid ounces, gallons, etc.).	gal.

(3) Part Stocking Information Entries

	Category	Entry Description	Example
1	Location/Bin	Enter the location in which the chemical is stored (see Paragraph (4).	Hgr 9 SE
2	Maximum Stock	Enter the maximum quantity of the chemical that may be stored onsite. Note: This information will be posted by ESH upon approval.	4 gal.

(4) Hazardous Material Storage Locations

Storage Location Descriptions	Location Code
Cabinet in the SE corner of Hangar 9	Hgr 9 SE
Drum storage in the SE corner of Hangar 9	Hgr 9 SE
Shelving in the Tool Room	Tool Rm
Cabinet in the accessory shop	Acc Shop
Paint preparation room (Rm 111W)	Paint Prep
Paint Shop (Rm 110W)	Paint Shop
Cabinet in the Tool & Die Shop	Tool & Die
Cabinet in the Sheet Metal Shop	Sheet Metal
Cabinet in the NE corner of Hangar 9	Hgr 9 NE
Drum storage at the parts cleaner in Hgr 9	Hgr 9 W
Cabinet in the Avionics Repair Shop	Av Shop
Cabinet in Upholstery Shop (H9E, Rm 135)	Uph Shop
Lean-to Wheel & Brake Cleaning Room	LS2-W&B
Cabinet in Hgr 8 Non-destructive Inspection	H8 NDI
Cabinet in Hgr 8 Wheel & Brake Shop	H8 W&B
Cabinet on the East wall of Hgr 8	H8

(5) Purchase Order

(a) Complete all vendor and order information.
(b) ESH will indicate approval by notation in "Additional Notes".

FIGURE 1. HAZARD CODES

Content Descriptions	Container Code
The first number in the triad represents the chemical's HMIS "health hazard" rating (blue label field). Enter a whole number between 0 and 4 as indicated by the MSDS.	0-4
The second number in the triad represents the chemical's HMIS "flammability hazard" rating (red label field). Enter a whole number between 0 and 4 as indicated by the MSDS.	0-4
The third number in the triad represents the chemical's HMIS "reactivity hazard" rating (yellow label field). Enter a whole number between 0 and 4 as indicated by the MSDS.	0-4

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

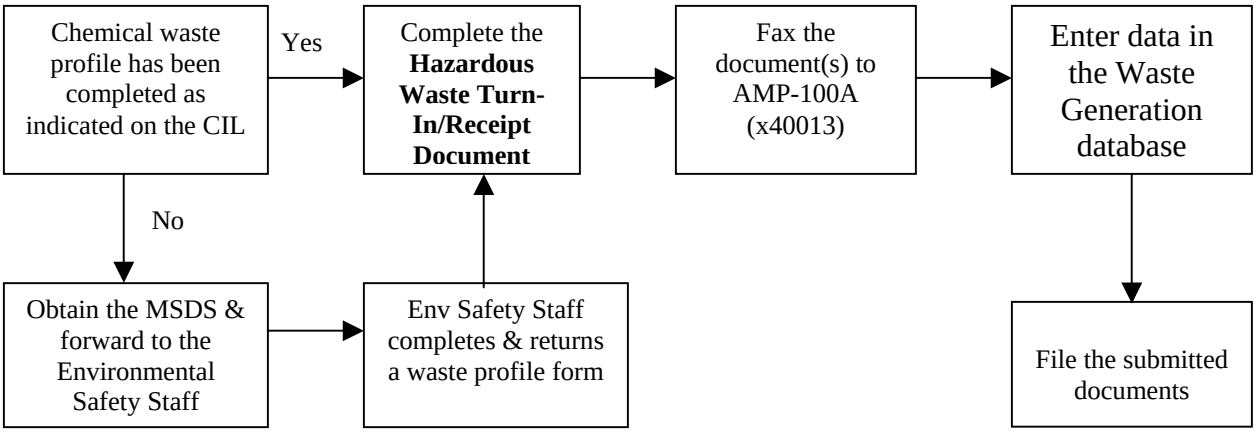
*11. WASTE DISPOSAL PROCEDURES

This section contains Waste Turn-In, General Waste Disposal, Used Oil & Hydraulic Fluid Disposal, Gas Path Cleaning Rinse Water Disposal, Paint, Thinner and Light Solvent Disposal, Paint Stripper (dichloromethane) Disposal, Aluminum Oxide Blast Media Disposal, Glass Bead Blast Media Disposal, Plastic Bead Blast Media Disposal, Acid Etch Disposal, Acid Etch Rinse Water Disposal, Alodine Disposal, Adoline Rinse Water Disposal, Paint Booth Wash Water Disposal, Wheel & Brake Cleaning Room Floor Rinse Water Disposal, Out-of-Spec, Out-of-Date and Unusable Product Disposal, Battery Disposal, Tire Disposal, Refrigerant Container Disposal, Photographic Chemical Solution Disposal, Wheel and Brake/Landing Gear Wash Water Disposal, Aircraft Lavatory Service Waste Disposal, Biohazardous Waste Disposal, Mercury-Containing Instrument Disposal, Solid and Granular Absorbent Disposal, Fluorescent Dye Penetrant Rinse Water Disposal and X-Ray Developing Tank Disposal Procedures applicable to Aircraft Maintenance and Engineering Division, AVN-300, personnel.

A. WASTE TURN-IN PROCEDURE

(1) Waste Container & Treatment System Discharge Turn-In Procedure

Upon receipt of a Waste Turn-In Card, VN-Form 4100-19, (Reference Figure at the end of this section) or Batch Discharge Log (available from AVN-300 Safety Officer), the Chemical Expediter will apply the following procedure for submitting the Hazardous Waste Turn-In/Receipt Document to Environmental Safety and Emergency Management, AMP-100A, for disposal and/or recording of the transaction.

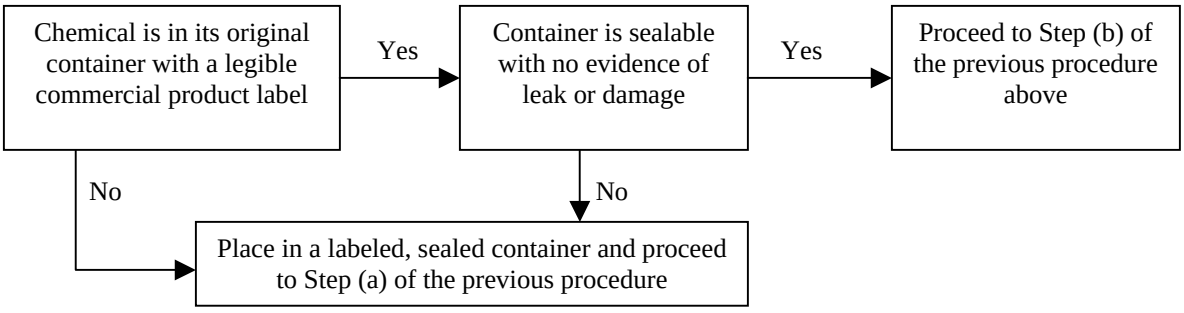


(a) Refer to MMAC Waste Generator Management Procedures, Section 8, paragraph A.(6) for instructions as necessary.

(b) Form must be submitted to AMP-100A within one working day of receiving the Waste Turn-In Card, VN Form 4100-19 (Reference Figure 1 at the end of this section).

(2) Unused Commercial Chemical Product Turn-In Procedure

Upon receipt of a container of out-of-spec, out-of-date or unused product, the Chemical Expediter will apply the following procedure for submitting the waste to AMP-100A for disposal.



(a) Leave the Accumulation Start Date blank when completing the Waste Turn-In/Receipt Document.

(3) Aerosol Can Turn-In Procedure

Unless emptied of all liquids, gases and propellants through puncturing or crushing, aerosol cans containing hazardous constituents in the product or propellant must be managed as hazardous waste. The Chemical Expediter must ensure that:

(a) As much of the product as possible is used for its intended purpose before the container is submitted for disposal.

(b) Check to ensure a waste profile form has been submitted for the product hazard classification (contact the Environmental Safety Staff if the hazard class is unknown).

(c) Place cans in a cardboard carton and follow Procedure (1)(a) above for submission of the materials to AMP-100A.

B. GENERAL WASTE DISPOSAL PROCEDURE

Aircraft Maintenance and Engineering Division, AVN-300, personnel performing a task that generates a controlled waste must:

(1) **BEFORE** performing the waste-generating task:

(a) **REVIEW** the procedure for the specific chemical waste being generated.

(b) **OBTAIN** supervisor instructions if no procedure is available for the specific waste to be generated.

(c) **OBTAIN** the smallest possible drum for the expected liquid volume.

(2) **WHILE** transferring waste into a container:

(a) **WATCH** closely the liquid level when adding liquid to prevent overfilling.

(b) Fill each drum to a level **NO GREATER THAN** that the specified in Figure 1, Chapter V, Section 4.

(3) **AFTER** completing the waste transfer process:

(a) **INSTALL** immediately all bungs on the drum.

(b) **WIPE CLEAN** all drums, equipment and environmental surfaces.

(c) **DISPOSE** contaminated rags in the designated container.

(d) **PROPERLY LABEL** each drum to which liquid was added (see the chemical-specific procedure).

(e) **PLACE** full drums on a wooden pallet in the NE or SE corner of Hangar 9 or the SW corner of Hangar 8.

(f) **COMPLETE** a Hazardous Waste Turn-In Card, VN Form 4100-19, (Reference Figure 1 at the end of this section) and **SUBMIT** it to the Chemical Expediter.

(g) **ENSURE** the satellite accumulation point (SAP), waste disposal equipment and waste containers are **CLEAN** and **ORDERLY**.

(h) Handle solid absorbents in accordance with the Solid and Granular Absorbent Disposal Procedure.

C. USED OIL AND HYDRAULIC FLUID DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Oil drain container, rags and HazWaste Turn-In Card, VN Form 4100-19, (Reference Figure 1 at the end of this Section).

(2) Disposal Procedure

(a) Position the oil drain container as close as practicable to the aircraft drain port(s).

(b) Drain oil, close port, and transport the oil drain container to the H9-SE SAP (southeast corner of Hangar 9).

(c) **CHECK** container labels to ensure the fluid is added to a drum bearing a **USED OIL** or **USED HYDRAULIC FLUID** label (as applicable), and transfer the contents of the oil drain container into the proper drum.

(d) **CLOSELY WATCH** liquid level while adding fluid to prevent overfilling.

(e) Fill each drum to **NO MORE THAN 7/8** capacity.

(f) **WIPE CLEAN** all drums, equipment and environmental surfaces and dispose contaminated rags in the designated container.

(g) When fluid level **GAUGE READS 7/8**, install bungs, **COMPLETE** a HazWaste Turn-In Card, VN Form 4100-19, and **SUBMIT** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of oil or hydraulic fluid entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

3 Report any spill of one quart or more to the Environmental Safety Staff (46230) only.

(b) Spill Containment:

1 Take all necessary actions to prevent entry of oil or hydraulic fluid into storm water, industrial wastewater or sanitary sewer drains.

2 Immediately obtain granular absorbent and/or absorbent socks, mats or rags, absorb all liquid and decontaminate all equipment and environmental surfaces.

3 Dispose rags in designated container.

4 Handle solid absorbents in accordance with the Solid and Granular Absorbent Disposal Procedure.

D. GAS PATH CLEANING RINSE WATER DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Batch Discharge Form.

(2) Disposal Procedure

(a) Service the engine in accordance with work card and manufacturer instructions.

(b) If materials entering the drain are other than those normally used in the wash bay, estimate the quantity of water, the quantity of gas path cleaner, and the quantity of any chemical not normally used in the process.

(c) If materials entering the drain are other than those normally used in the wash bay, contact the MMAC wastewater treatment plant (42358) to report the specific chemicals disposed and the disposal quantity.

(d) If materials entering the drain are other than those normally used in the wash bay, **complete** a Batch Discharge Form (Available from the AVN-300 Safety Officer), including the quantity of all chemicals disposed and the estimated amount of water discharge and **immediately submit** it to the Chemical Expediter.

E. PAINT, THINNER AND LIGHT SOLVENT DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Shipping drum (30-gal); funnel; pop-up fill gauge; HazWaste label available from Hgr 9 Tool Room and HazWaste Turn-In Card, VN Form 4100-19, (Reference Figure 1 at the end of this section).

(2) Disposal Procedure

(a) Place shipping drum on the containment pallet in the Paint Shop, and attach funnel, fill gauge and grounding cable.

(b) **Obtain a HazWaste Label**. Write "WASTE PAINT & THINNER" on the label and apply the label to the drum.

(c) If material is being transferred from a metal container to the drum, attach a **bonding cable** between the two containers.

(d) Pour only waste paint, thinner and light solvents (MEK, acetone, etc.) into the drum.

(e) **Closely watch** the liquid level to prevent overfilling. Stop adding liquid if the fill gauge pops up.

(f) **Wipe clean** all containers, equipment and environmental surfaces and dispose contaminated rags in the designated container.

(g) When pop-up gauge indicates a full drum, replace the bungs, tightly seal the drum, and enter the current date on the HazWaste label.

(h) **Immediately complete** a HazWaste Turn-In Card, VN Form 4100-19, and **submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of paint, thinner or light solvent entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Immediately report a spill of **one or more gallons** in any location to the Emergency Line (43444).

3 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

4 Report a minor spill (less than one gallon) to the Environmental Safety Staff (46230) only.

(b) Spill Containment.

1 Take all necessary actions to prevent entry of paint, thinner or other solvents into storm water, industrial wastewater or sanitary sewer drains.

2 If safe to do so, immediately obtain absorbent socks, absorbent mats or rags, absorb all liquid and decontaminate all equipment and environmental surfaces.

3 Dispose rags in designated container.

4 Handle solid absorbents in accordance with Solid and Granular Absorbent Disposal Procedure in this Section 11.

F. PAINT STRIPPER (Dichloromethane) DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Open head poly shipping drum (20-gallon); HazWaste Label (Available in Hgr 9 Tool Room) and HazWaste Turn-In Card, VN Form 4100-19, (Reference Figure 1 at the end of this section).

(2) Disposal Procedure

(a) Immediately place ALL contaminated solids (rags, towels, cups, applicators, etc.) in the drum and tightly close the drumhead.

(b) When the drum is filled to 7/8 capacity, **wipe clean** the container and any surrounding environmental surfaces, dispose contaminated rags in the drum, and tightly seal the drumhead.

(c) **Obtain a HazWaste Label**. Write "DICHLOROMETHANE-CONTAMINATED SOLIDS", enter the current date and apply the label to the drum.

(d) **Immediately complete** a HazWaste Turn-In Card, VN Form 4100-19, and **submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of dichloromethane (methylene chloride, paint stripper) entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Immediately report a spill of **one or more quarts** in any location to the Emergency Line (43444).

3 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line (43444).

4 Report any minor spill (less than one quart) to the Environmental Safety Staff (46230) only.

(4) Spill Containment

(a) Take all necessary actions to prevent entry of paint stripper into storm water, industrial wastewater and sanitary sewer drains.

(b) If safe to do so, immediately obtain absorbent socks, absorbent mats or rags, absorb all liquid, and decontaminate all equipment and environmental surfaces.

(c) Place rags and solid absorbents in a 5-gallon plastic container, label the container in accordance with paragraph (2)(c) above, tightly seal the container and proceed to paragraph (2)(d) above.

G. ALUMINUM OXIDE BLAST MEDIA DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Open top metal drum (5-gallon), dust respirator, scoop, hepivac (vacuum unit equipped with a high-efficiency particulate air or "HEPA" filter), HazWaste Label (Available in Hgr 9 Tool Room) and HazWaste Turn-In Card, VN Form 4100-19, (Reference Figure 1 at the end of this section).

(2) Disposal Procedure

(a) Place drum as near to the machine's blast media compartment as practicable.

(b) Don respirator, open compartment door and use scoop to remove blast media.

(c) Use a hepivac to remove residue from the media compartment floor.

(d) Close the compartment door, **wipe clean** all containers, equipment and surrounding floor and dispose contaminated rags in the shipping drum.

(e) The drum can be filled to capacity, but **do not** overfill. After cleaning, seal the drumhead,, remove the respirator and place the drum on the SAP (Hgr 9-Room 111W).

(f) **Obtain a HazWaste Label**. Write "CONTAMINATED ALUMINUM OXIDE BLAST MEDIA", enter the current date and apply the label to the drum.

(g) **Complete** a HazWaste Turn-In Card, VN Form 4100-19 and **immediately submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity

1 Immediately report any amount of aluminum oxide blast media entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

(b) Spill Containment

1 Take all necessary actions to prevent any entry of aluminum oxide blast media into storm water, industrial wastewater or sanitary sewer drains.

2 Keep equipment and materials contaminated with used aluminum oxide blast media inside the hangar until all residual aluminum oxide blast media has been removed and equipment has been decontaminated.

3 Keep containers of contaminated aluminum oxide blast media inside the hangar until all external surfaces have been decontaminated.

H. GLASS BEAD BLAST MEDIA DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Open top metal drum (5-gallon), dust respirator, scoop, hepivac (vacuum unit equipped with a high-efficiency particulate air or "HEPA" filter), HazWaste Label (Available in Hgr 9 Tool Room) and HazWaste Turn-In Card, VN Form 4100-19 (Reference figure 1 at the end of this section).

(2) Disposal Procedure

(a) Place drum as near to the machine's blast media compartment as practicable.

(b) Don respirator, open compartment door and use scoop to remove blast media.

(c) Use a hepivac to remove residue from the media compartment floor.

(d) Close the compartment door, **wipe clean** all containers, equipment and surrounding floor and dispose of contaminated rags in the shipping drum.

(e) The drum can be filled to capacity, but **do not** overfill. After cleaning, seal the drumhead, remove the respirator and place the drum on the SAP (H9-Room 111W).

(f) **Obtain a HazWaste Label**. Write "CONTAMINATED GLASS BEAD BLAST MEDIA", enter the current date and apply the label to the drum.

(g) **Complete** a HazWaste Turn-In Card, VN Form 4100-19, and **immediately submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of glass bead blast media entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

(b) Spill Containment:

1 Take all necessary actions to prevent entry of glass bead blast media into storm water, industrial wastewater or sanitary sewer drains.

2 Keep equipment and materials contaminated with used glass bead blast media inside the hangar until all residual glass bead blast media has been removed and the equipment has been decontaminated.

3 Keep containers of contaminated glass bead blast media inside the hangar until all external surfaces have been decontaminated.

I. PLASTIC BEAD BLAST MEDIA DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Open top metal drum (5-gallon), dust respirator, scoop, hepivac (vacuum unit equipped with a high-efficiency particulate air or "HEPA" filter), HazWaste Label (Available in Hgr 9 Tool Room) and HazWaste Turn-In Card, VN Form 4100-19 (Reference figure 1 at the end of this section).

(2) Disposal Procedure

(a) Place drum as near to the machine's blast media compartment as practicable.

(b) Don respirator, open compartment door and use scoop to remove blast media.

(c) Use a hepivac to remove residue from the media compartment floor.

(d) Close the compartment door, **wipe clean** all containers, equipment and surrounding floor and dispose of contaminated rags in the shipping drum.

(e) The drum can be filled to capacity, but **do not** overfill. After cleaning, seal the drumhead, remove the respirator and place the drum on the SAP (H9- Room 111W).

(f) **Obtain a HazWaste Label**. Write "CONTAMINATED PLASTIC BEAD BLAST MEDIA", enter the current date and apply the label to the drum.

(g) **Complete** a HazWaste Turn-In Card, VN Form 4100-19, and **immediately submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of glass bead blast media entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

(b) Spill Containment:

1 Take all necessary actions to prevent entry of glass bead blast media into storm water, industrial wastewater or sanitary sewer drains.

2 Keep equipment and materials contaminated with used glass bead blast media inside the hangar until all residual glass bead blast media has been removed and the equipment has been decontaminated.

3 Keep containers of contaminated glass bead blast media inside the hangar until all external surfaces have been decontaminated.

J. ACID ETCH DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Two tight-head poly shipping drums (1 each 55-gallon and 30-gallon), dip tank gauge, approved submersible pump, pop-up fill gauge, HazWaste Label (Available in Hgr 9 Tool Room), HazWaste Turn-In Card, VN Form 4100-19 (Reference figure 1 at the end of this section).

(2) Disposal Procedure

(a) Gauge the liquid depth and determine the estimated quantity of acid etch to be disposed (see formula below):

$$Quantity_{\,gallons} = \left[\frac{Liquid\ depth_{\,inches}}{48} \right] \text{ X } 100$$

(b) Remove the bungs from the shipping drum and install the pop-up fill gauge.

(c) Check tank labels, place the pump in the acid etch tank and place the discharge hose into the drum and activate the pump.

(d) After emptying the tank, remove the hose from the drum, remove the fill gauge, replace the bungs and place the drum on the SAP (H9-Room 111W).

(e) Remove the pump from the dip tank, **wipe clean** all containers, equipment and environmental surfaces and dispose rags in the alodine waste rag container.

(f) **Obtain a HazWaste Label**. Write "WASTE ACID ETCH", enter the current date and apply the label to the drum.

(g) **Complete** a HazWaste Turn-In Card, VN Form 4100-19, and **immediately submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of acid etch entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Immediately report a spill of **one or more gallons** in any location to the Emergency Line (43444).

3 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

4 Report any minor spill (less than one gallon) to the Environmental Safety Staff (46230) only.

(b) Spill Containment:

1 Take necessary actions to prevent entry of acid etch into storm water, industrial wastewater or sanitary sewer drains.

2 If safe to do so, immediately don protective gloves and face protection, obtain corrosive absorbent mats, absorb all liquid and decontaminate all equipment and environmental surfaces.

3 Handle solid absorbents in accordance with the Solid and Granular absorbent Disposal Procedure in this Section 11.

K. ACID ETCH RINSE WATER DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Dip tank gauge, approved submersible pump and Batch Discharge Form (Available from AVN-300 Safety Officer).

(2) Disposal Procedure

(a) Gauge the liquid depth and determine the estimated quantity of acid etch rinse water to be disposed (see formula below). Contact the MMAC wastewater treatment plant (42358) to obtain disposal clearance.

$$Quantity_{\,gallons} = \left[\frac{Liquid\ depth_{\,inches}}{48} \right] \text{X } 100$$

(b) Check tank labels and place the pump in the ACID ETCH RINSE WATER tank.

(c) Check the disposal tube labels and remove the plug from the **blue** tube.

(d) Place the discharge hose into the **blue** disposal tube and activate the pump.

(e) After emptying the tank, remove the hose from the disposal tube and replace plug.

(f) Remove the pump from the dip tank, **wipe clean** all containers, equipment and environmental surfaces and dispose contaminated rags in the designated container.

(g) **Complete** a Batch Discharge Form and **immediately submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of acid etch rinse water entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Immediately report a spill of **five or more gallons** in any location to the Emergency Line (43444).

3 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

4 Report any minor spill (less than five gallons) to the Environmental Safety Staff (46230) only.

(b) Spill Containment:

1 Take necessary actions to prevent entry of acid etch rinse water into storm water or sanitary sewer drains.

2 If safe to do so, immediately don protective gloves and face protection, obtain corrosive absorbent mats, absorb all liquid, and decontaminate all equipment and environmental surfaces.

3 Handle solid absorbents in accordance with the Solid and Granular Absorbent Disposal Procedure in this Section 11.

L. ADOLINE DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Two tight-head only shipping drums (1 each 55-gallon and 30-gallon), dip tank gauge, approved submersible pump, pop-up fill gauge, HazWaste Label, Oxidizer Label (Labels available from Hgr 9 Tool Room) and HazWaste Turn-In Card, VN Form 4100-19 (Reference Figure 1 at the end of this section).

(2) Disposal Procedure

(a) Gauge the liquid depth and determine the estimated quantity of alodine to be disposed (see formula below):

$$Quantity_{gallons} = \left[\frac{Liquid\ depth_{inches}}{48} \right] \text{X } 100$$

(b) Remove the bungs from the shipping drum and install the pop-up fill gauge.

(c) Check tank labels, place the pump in the alodine tank and place the discharge hose into the drum and activate the pump.

(d) After emptying the tank, remove the hose from the drum, remove the fill gauge, replace the bungs and place the drum on the temporary SAP (H9-Room 111W).

(e) Remove the pump from the dip tank, **wipeclean** all containers, equipment and environmental surfaces and dispose rags in the designated container.

(f) **Obtain a HazWaste Label** (available from Hangar 9 Tool Room). Write "WASTE ALODINE", enter the current date and apply the label to the drum. Apply the "Oxidizer" label to the drum.

(g) **Complete** a HazWaste Turn-In Card, VN Form 4100-19, and **immediately submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of alodine entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Immediately report a spill of **one or more gallons** in any location to the Emergency Line (43444).

3 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

4 Report any minor spill (less than one gallon) to the Environmental Safety Staff (46230) only.

(b) Spill Containment:

1 Take necessary actions to prevent entry of alodine into storm water, industrial wastewater or sanitary sewer drains.

2 If safe to do so, immediately don protective gloves and face protection, obtain corrosive absorbent mats, absorb all liquid, and decontaminate all equipment and environmental surfaces.

3 Handle solid absorbents in accordance with the Solid and Granular Absorbent Disposal Procedure in this Section 11.

M. ALODINE RINSE WATER DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Dip tank gauge, approved submersible pump and Batch Discharge Form (Available from AVN-300 Safety Officer).

(2) Disposal Procedure

(a) Gauge the liquid depth and determine the estimated quantity of alodine rinse water to be disposed (see formula below). Contact MMAC wastewater treatment plant (42358) to obtain disposal clearance.

$$Quantity_{gallons} = \left[\frac{Liquid\ depth_{inches}}{48} \right] \text{X } 100$$

(b) Check tank labels and place the pump in the ALODINE RINSE WATER tank.

(c) Check the disposal tube labels and remove the plug from the **yellow** tube.

(d) Place pump hose into the **yellow** disposal tube and activate the pump.

(e) After the tank is empty, remove the hose from the disposal tube and replace plug.

(f) Remove the pump from the dip tank, **wipe clean** all containers, equipment and environmental surfaces and dispose contaminated rags in the designated container.

(g) **Complete** a Batch Discharge Form (Available from AVN-300 Safety Officer) and **immediately submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of alodine rinse water entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Immediately report a spill of **five or more gallons** in any location to the Emergency Line (43444).

3 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

4 Report any minor spill (less than five gallons) to the Environmental Safety Staff (46230) only.

(b) Spill Containment:

1 Take necessary actions to prevent entry of alodine rinse water into storm water or sanitary sewer drains.

2 If safe to do so, immediately don protective gloves and face protection, obtain corrosive absorbent mats, absorb all liquid, and decontaminate all equipment and environmental surfaces.

3 Handle solid absorbents in accordance with the Solid and Granular Absorbent Disposal Procedure in this Section 11.

N. PAINT BOOTH WASH WATER DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Shovel, 55-gallon open head drum(s), Batch Discharge Form (Available from AVN-300 Safety Officer), HazWaste Label (Available in Hgr 9 Tool Room) and HazWaste Turn-In Card, VN Form 4100-19 (Reference Figure 1 at the end of this section).

(2) Disposal Procedure

(a) Gauge the liquid depth and determine the estimated quantity of wash water to be disposed (see formulae below). Contact the MMAC wastewater treatment plant (42358) to obtain disposal clearance.

$$Lg\ Booth\ Quantity_{gallons} = \left[3.3 \times water\ depth_{inches}\right] \times 7.5$$ (396 gallons for 16-in depth)

$$Sm\ Booth\ Quantity_{gallons} = \left[1.5 \times water\ depth_{inches}\right] \times 7.5$$ (180 gallons for 16-in depth)

(b) Open tank drain valve and drain tank.

(c) Remove tank sludge to open-head drum, seal drum and **obtain a HazWaste Label**. Write "PAINT BOOTH SLUDGE", enter the current date and apply label to drum.

(d) Rinse tank and close drain valve.

(e) **Wipe clean** all containers, equipment and environmental surfaces, dispose contaminated rags in the sludge container and seal the container.

(f) **Immediately complete** a HazWaste Turn-In Card, VN Form 4100-19, for the sludge waste and a Batch Discharge Form (calculated tank quantity plus estimated rinse water quantity) and **submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of paint booth wash water entering any storm water or sanitary sewer drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Notify the Environmental Safety Staff (46230) or any report to the MMAC Emergency Line.

3 Report any contained spill to the Environmental Safety Staff (46230) only.

(b) Spill Containment:

1 Take all necessary actions to prevent entry of paint booth wash water into storm water or sanitary sewer drains.

2 Immediately don protective gloves and face protection, obtain absorbent socks or mats, absorb all liquid, and decontaminate all equipment and environmental surfaces.

3 Handle solid absorbents in accordance with Solid and Granular Absorbent Disposal Procedure in this Section 11.

O. WHEEL AND BRAKE CLEANING ROOM FLOOR RINSE WATER DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) One tight head metal drum (30-gallon), pop-up fill gauge, funnel, approved submersible pump, HazWaste Label (available in Hgr 9 Tool Room) and HazWaste Turn-In Card, VN Form 4100-19, (Reference Figure 1 at the end of this section).

(2) Disposal Procedure

(a) Place drum near the door and attach funnel and fill gauge.

(b) Rinse and mop floor, pushing as much liquid into the sump trench as possible.

(c) Squeeze mop head into drum funnel as necessary.

(d) Place the pump into the sump trench, insert the discharge hose into the drum and activate the pump.

(e) **Closely watch** the liquid level to prevent overfilling. Stop adding liquid if the fill gauge pops up.

(f) Mop the sump trench, use a towel **wipe clean** all containers, equipment and environmental surfaces and dispose contaminated rags in the drum.

(g) Return the HazWaste to the Satellite Accumulation Point (H9-NE) and transfer the drum(s) to the containment pallet.

(h) **Obtain a HazWaste Label** (Available in Hgr 9 Tool Room). Write "WASTE WHEEL AND BRAKE CLEANING ROOM FLOOR RINSE WATER", enter the current date and apply to the drum.

(i) **Immediately complete** a HazWaste Turn-In Card, VN Form 4100-19 and **submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of wheel and brake cleaning room floor rinse water entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

(b) Spill Containment:

1 Take all necessary actions to prevent entry of floor rinse water into storm water or sanitary sewer drains.

2 Immediately don protective gloves and face protection, obtain absorbent socks or mats, absorb all liquid and decontaminate all equipment and environmental surfaces.

3 Handle solid absorbents in accordance with Solid and Granular Absorbent Disposal Procedure in this Section 11.

P. OUT-OF-SPEC, OUT-OF-DATE AND UNUSABLE PRODUCT DISPOSAL PROCEDURE

(1) Disposal Procedure

(a) Personnel must ensure that all out-of-spec, out-of-date and unusable products are submitted in the original shipping container. Personnel must consult the Chemical Expediter (48934) or Environmental Safety Staff (46230) for instructions regarding unused product that cannot be submitted in the original shipping container.

(b) Two-part adhesives and sealants (epoxy, urethane, acrylic, silicone and similar products) can be mixed, allowed to adequately set and disposed as ordinary waste. All other containers must be submitted in accordance with the following requirements.

(c) Containers of out-of-spec, out-of-date and unusable product containers (including aerosol cans) must be stored in their designated locations until transferred to the designated cabinet in the southeast corner of Hangar 9. Personnel will:

1 Periodically check cabinets, tool boxes, shelves and other locations and remove all out-of-spec, out-of-date and unusable product containers.

2 Inspect each container to be submitted for leaks (place leaking containers in a secondary container).

3 Ensure that all containers are legibly labeled (label any container which does not have a legible indicator of contents).

4 Ensure that all containers are tightly closed/sealed.

5 Place the containers in the designated cabinet for inspection by the Chemical Expediter.

(d) The Chemical Expediter will inspect each container, determine whether each container is to be declared a hazardous waste, and complete a Waste Turn-In/Receipt Document in accordance with the Waste Turn-In Procedure, for aggregated containers that are determined to be hazardous waste.

(2) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of a hazardous material, entering any drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

3 Report any spill to the Environmental Safety Staff (46230).

(b) Spill Containment:

1 Take necessary actions to prevent entry of hazardous material into storm water, industrial wastewater or sanitary sewer drains.

2 Immediately don protective gloves and face protection, obtain absorbent socks or mats and absorb all liquid.

3 Consult the appropriate Material Safety Data Sheet or contact the Environmental Safety Staff (46230) for instructions regarding decontamination of equipment and environmental surfaces.

4 Handle solid absorbents in accordance with Solid and Granular Absorbent Disposal Procedure in this Section 11.

Q. BATTERY DISPOSAL PROCEDURE

(1) Disposal Equipment

Five gallon high-density polyethylene (HYPE) open-head container with lid, electrical tape, Universal Waste Label (Available from Hgr 9 Tool Room).

(2) Disposal Procedure

The supervisor or lead personnel in each shop is responsible for maintaining the availability of one or more HDPE containers, as necessary for disposing of each type of battery generated in the shop's operations, for the disposal of spent batteries. Disposable batteries and battery packs include alkaline, lead acid, nickel-cadmium and lithium. Contact the Environmental Safety Staff for disposal instructions for any other type of battery. Tool Room personnel shall maintain a labeled 55-gallon HDPE container at the Tool Room entrance for disposal of alkaline batteries generated by mechanics on the hangar floor. Supervisors and lead personnel must ensure that all personnel whose responsibilities include the disposal of batteries are familiar with this procedure and the location of disposal containers for each type of battery they handle.

(a) Apply a Universal Waste Label to the container with the legend "SPENT BATTERIES" and name of the type of battery to be disposed (alkaline, lead acid, nickel-cadmium or lithium) written on the label.

(b) Apply electrical tape to the battery contacts/connectors in a manner that effectively prevents accidental electrical discharge.

(c) Place the battery in the container.

(d) When the container is approximately 85% filled:

1 Seal the container;

2 Write the date on the container label;

3 Place the container in the NE corner of Hangar 9; and

4 Complete a HazWaste Turn-In Card, VN Form 4100-19 and submit it to the Chemical Expediter.

R. TIRE DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) No special equipment required.

(2) Disposal Procedure

Tires are disposed as excess property and are therefore subject to the applicable FAA policies and procedures:

(a) Wheel and Brake Shop personnel will place tires to be disposed on a pallet near the door to the Wheel and Brake Shop in Hangar 8.

(b) Once a full pallet of tires has accumulated, the Wheel and Brake Shop lead must contact Property Support Personnel to request removal of the tires.

(c) Property Support Personnel (AVN-300), will complete a Report of Excess Property (FAA Form 4800-1) with the information provided by Wheel and Brake Shop Personnel and forward through AVN-330 to The Property Management Team, AMQ-160.

(d) AMQ-160 will review and forward the report to Reutilization and Marketing Branch, AML-1040, which will arrange for pickup of the tires.

S. REFRIGERANT CONTAINER DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Non-hazardous Waste Label (Available in Hgr 9 Tool Room), HazWaste Turn-In Card, VN Form 4100-19, (Reference Figure 1 at the end of this section).

(2) Disposal Procedure

(a) **Ensure** that the container valve is tightly closed.

(b) **Obtain a Non-Hazardous Waste Label**. Write "SPENT REFRIGERANT" and write the refrigerant type, enter the current date and apply the label to the container.

(c) **Place** container on a wooden pallet in the NE corner of Hangar 9.

(d) **Complete** a Hazardous Waste Turn-In Card, VN Form 4100-19, and **submit** it to the Chemical Expediter.

T. PHOTOGRAPHIC CHEMICAL SOLUTION DISPOSAL PROCEDURE

(1) Disposal Equipment

Batch Discharge Form (Available from AVN-300 Safety Officer), HazWaste Label (Available from Hgr 9 Tool Room), HazWaste Turn-In Card, VN Form 4100-19, (Reference Figure 1 at the end of this section).

(2) Disposal Procedure

(a) Estimate the quantity of chemicals to be disposed and contact the MMAC wastewater treatment plant (42358) to obtain disposal clearance.

(b) Drain the tank(s).

(c) **Immediately complete** a HazWaste Turn-In Card VN Form 4100-19 for the waste and a Batch Discharge Form (calculated tank quantity) and **submit** it to the Chemical Expediter

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of paint booth wash water entering any storm water or sanitary sewer drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

3 Report any contained spill to the Environmental Safety Staff (46230) only.

(b) Spill Containment

1 Take necessary actions to prevent entry of photographic developing chemicals into storm water or sanitary sewer drains.

2 Immediately don protective gloves and face protection, obtain absorbent socks or mats, absorb all liquid and decontaminate all equipment and environmental surfaces.

3 Handle solid absorbents in accordance with Solid and Granular Absorbent Disposal Procedure in this Section 11.

U. WHEEL AND BRAKE/LANDING GEAR WASH WATER DISPOSAL PROCEDURE

(1) Disposal Equipment

Submersible pump, funnel, shovel, appropriately sized hazardous waste drum(s), HazWaste Label (Available in Hgr 9 Tool Room) and HazWaste Turn-In Card, VN Form 4100-19 (Reference Figure 1 at the end of this section).

(2) Disposal Procedure

(a) Estimate residue volume and obtain appropriately sized drum.

(b) Insert pump into tank/machine reservoir and pump all liquid into the drum.

(c) Insert funnel into drum head and shovel tank/reservoir sludge into drum.

(d) **Obtain a HazWaste Label** (Available in Hgr 9 Tool Room) Write "WHEEL AND BRAKE" or "LANDING GEAR", as appropriate, and "WASH WATER", enter the current date, and apply label to drum.

(e) **Wipe clean** all containers, equipment and environmental surfaces, dispose contaminated rags in the sludge container and seal the container.

(f) **Immediately complete** a HazWaste Turn-In Card, VN Form 4100-19, for the sludge waste and **submit** it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of wheel and brake or landing gear wash water entering any storm water, industrial wastewater or sanitary sewer drain or spilled onto soil to th MMAC Emergency Line (43444).

2 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

3 Report any contained spill to the Environmental Safety Staff (46230) only.

(b) Spill Containment:

1 Take necessary actions to prevent entry of wheel and brake or landing gear wash water into storm water, industrial wastewater or sanitary sewer drains.

2 Immediately don protective gloves and face protection, obtain absorbent socks or mats, absorb all liquid, and decontaminate all equipment and environmental surfaces.

3 Handle solid absorbents in accordance with Solid and Granular Absorbent Disposal Procedure in this Section 11.

V. AIRCRAFT LAVATORY SERVICE WASTE DISPOSAL PROCEDURE

(1) Disposal Procedure

(a) Wear protective gloves and face protection when servicing aircraft lavatories.

(b) Closely follow the applicable aircraft manual and work cards when:

1 Connecting the drain hose to the aircraft.

2 Removing the drain hose from the aircraft.

3 Dumping the waste into the sanitary sewer system.

(c) Dispose of aircraft lavatory waste reservoirs in the Aircraft Lavatory Disposal Port located on the ramp near the southeast corner of Hangar 8.

(2) Spill Response

(a) Obtain a "Biohazard Disposal Kit" from the nearest First Aid Kit and follow the directions for personal protective equipment, cleanup, decontamination and disposal.

(b) Ensure that equipment/materials contaminated with blood or other potentially infectious body fluids are disposed ONLY and labeled with the Biohazard Symbol. The symbol is typically printed in black on a red or florescent orange container.

(c) Complete a HazWaste Turn-In Card, VN Form 4100-19, listing "Biohazardous Waste" as the chemical's common name and submit to the Chemical Expediter.

W. BIOHAZARDOUS WASTE DISPOSAL PROCEDURE

(1) Disposal Procedure

(a) Wear protective gloves and face protection when maintaining aircraft lavatories or performing other tasks that involve exposure to potentially infectious materials.

(b) Personnel who repair or remove any aircraft lavatory and consequently generate materials contaminated with blood or other potentially infections materials, must:

1 Use absorbent materials provided in the nearest First Aid Kit to absorb all body fluids.

2 Place contaminated materials in a designated bag or container in accordance with (b) of the following Spill Response procedure.

3 Follow (c) of the Spill Response procedure provided below to submit the container for disposal as biohazardous waste.

(2) Spill Response

(a) Obtain a "Biohazard Disposal Kit" from the nearest First Aid Kit and follow the directions for personal protective equipment, cleanup, decontamination and disposal.

(b) Ensure that equipment/materials contaminated with blood or other potentially infectious body fluids are disposed ONLY and labeled with the Biohazard Symbol. The symbol is typically printed in black on a red or fluorescent orange container.

(c) Complete a HazWaste Turn-In Card, VN Form 4100-19, listing "Biohazardous Waste" as the chemical's common name and submit to the Chemical Expediter.

X. MERCURY-CONTAINING INSTRUMENT DISPOSAL PROCEDURE

(1) Disposal Equipment

Sealable container of appropriate size for the equipment to be disposed, Universal Waste Label (Available in Hgr 9 Tool Room). HazWaste Turn-In Card, VN Form 4100-19, (Reference Figure 1 at the end of this section).

(2) Disposal Procedure

Any mercury-containing instrument/equipment to be disposed of must be handled as a Universal Waste in accordance with the following procedure:

(a) Disassemble the instrument/equipment to the smallest possible component within which the mercury is fully contained.

(b) Apply a Universal Waste Label (Available in Hgr 9 Tool Room) to an appropriately sized sealable container with the legend "MERCURY-CONTAINING INSTRUMENT".

(c) Place the instrument in the container and seal the container.

(d) Place the container in the NE corner of Hangar 9.

(e) Complete a HazWaste Turn-In Card, VN Form 4100-19, and submit it to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report the spill of any amount of mercury to the MAC Emergency Line (43444).

2 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

(b) Spill Containment:

1 Take all necessary actions to prevent entry of mercury into storm water, industrial wastewater or sanitary sewer drains.

2 Evacuate the area and wait until AMP-100A Hazardous Material Responders have cleared the area for re-entry.

Y. SOLID AND GRANULAR ABSORBENT DISPOSAL PROCEDURE

(1) Disposable Equipment

(a) Sealable container (5-, 10-, 15-, 20-, 30- or 55-gallon open-head drum) of appropriate size for the quantity of absorbent to be disposed, HazWaste Label (Available in Hgr 9 Tool Room) and HazWaste Turn-In Card, VN Form 4100-19 (Reference Figure 1 at the end of this Section).

(2) Disposal Procedure

(a) Granular absorbent used to collect spilled oil, hydraulic fluid and jet fuel will be reused until substantially impregnated with waste material.

(b) Spent granular absorbent will be classified as a hazardous waste.

(c) Place spent granular absorbent in a 5-gallon (or larger drum, if necessary) high-density polyethylene (HDPE) open-head container (do not fill beyond 85% of the container's capacity).

(d) **Obtain a HazWaste Label** (Available in Hgr Tool Room). Write "SPENT GRANULAR ABSORBENT CONTAMINATED WITH OIL AND/OR JET FUEL", enter the current date and apply label to drum.

(e) **Wipe clean** all containers, equipment and environmental surfaces, dispose contaminated rags in the container and seal the container.

(f) **Immediately complete** a HazWaste Turn-In Card, VN Form 4100-19, for the waste and **submit** it to the Chemical expediter.

(3) Granular Absorbent Disposal Procedure

Granular absorbent used to collect all types of chemical waste other than oil, hydraulic fluid and/or jet fuel and all contaminated solid absorbent mats, socks and pads, including those used for oil, hydraulic fluid and jet fuel, must be disposed of immediately.

(a) Place waste absorbents in a 5-gallon (or larger drum, if necessary) high-density polythylene (HDPE) open-head container.

(b) **Obtain a HazWaste Label** (Available in Hgr 9 Tool Room). Write "SPENT SOLID ABSORBENT CONTAMINATED WITH" and the identity of the absorbed chemical, enter the current date and apply label to drum.

(c) **Wipe clean** all containers, equipment and environmental surfaces, dispose contaminated rags in the container and seal the container.

(d) **Immediately complete** a HazWaste Turn-In Card, VN Form 4100-19, for the waste and **submit** it to the Chemical Expediter.

Z. FLUORESCENT DYE PENETRANT RINSE WATER DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Batch Discharge Form (Available from AVN-300 Safety Officer).

(2) Disposal Procedure

(a) Since the tank drains automatically when the liquid level reaches the pre-set depth (discharging approximately 250 gallons), notify the MMAC wastewater treatment plant (42358) as soon as possible after tank discharge of the process name and discharge quantity.

(b) **Immediately complete** a Batch Discharge Form and **submit** it to the Chemical Expediter.

(3) Spill Response

(a) N/A

AA. X-RAY DEVELOPING TANK DISPOSAL PROCEDURE

(1) Disposal Equipment

(a) Batch Discharge Form.

(2) Disposal Procedure

(a) Open tank drain valves and drain tanks.

(b) **Immediately complete** a Batch Discharge Form (Available from AVN-300 Safety Officer) and **submit** to the Chemical Expediter.

(3) Spill Response

(a) Reportable Quantity:

1 Immediately report any amount of x-ray developing chemicals entering any storm water or sanitary sewer drain or spilled onto soil to the MMAC Emergency Line (43444).

2 Notify the Environmental Safety Staff (46230) of any report to the MMAC Emergency Line.

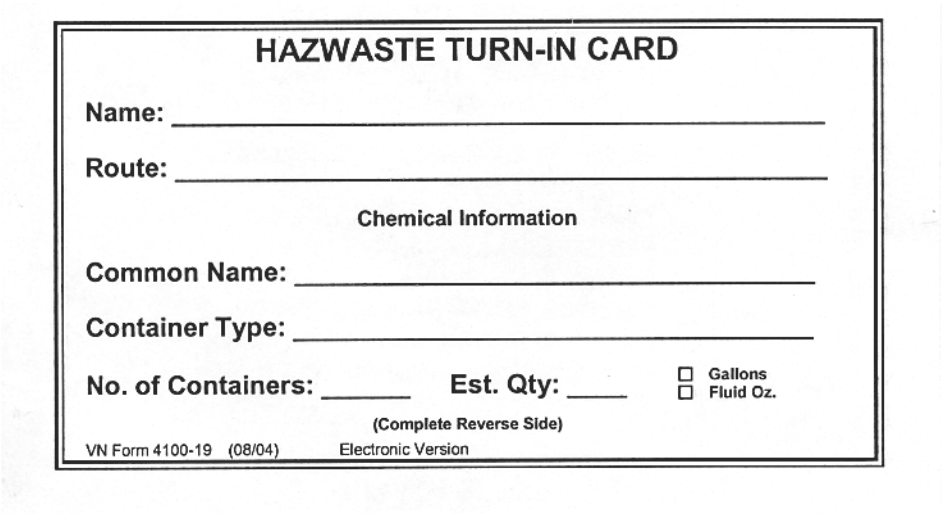
3 Report any contained spill to the Environmental Safety Staff (46230) only.

(b) Spill Containment:

1 Immediately don protective gloves and face protection, obtain absorbent socks or mats, absorb all liquid, and decontaminate all equipment and environmental surfaces.

2 Handle solid absorbents in accordance with Solid and Granular Absorbent Disposal Procedure in this Section 11.

Figure 1. HAZWASTE TURN IN CARD, VN Form 4100-19



HAZWASTE TURN-IN CARD

Name: _____

Route: _____

Chemical Information

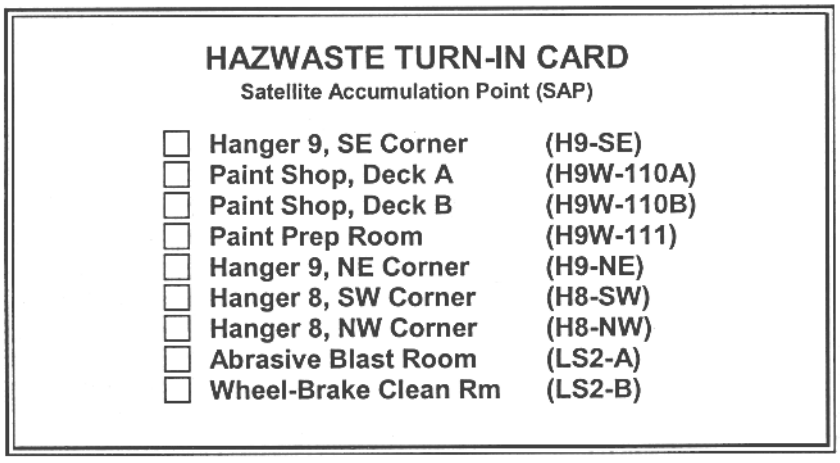
Common Name: _____

Container Type: _____

No. of Containers: _____ Est. Qty: ____ ☐ Gallons ☐ Fluid Oz.

(Complete Reverse Side)

VN Form 4100-19 (08/04) Electronic Version



HAZWASTE TURN-IN CARD

Satellite Accumulation Point (SAP)

☐ Hanger 9, SE Corner	(H9-SE)
☐ Paint Shop, Deck A	(H9W-110A)
☐ Paint Shop, Deck B	(H9W-110B)
☐ Paint Prep Room	(H9W-111)
☐ Hanger 9, NE Corner	(H9-NE)
☐ Hanger 8, SW Corner	(H8-SW)
☐ Hanger 8, NW Corner	(H8-NW)
☐ Abrasive Blast Room	(LS2-A)
☐ Wheel-Brake Clean Rm	(LS2-B)

This form is available on the FAA Electronic Document System (FEDS) at Internet web site, http://feds.faa.gov.

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

*12. CHEMICAL INFORMATION LIST (CEL) AND MATERIAL SAFETY DATA SHEETS (MSDS) MANAGEMENT

A. GENERAL

The Chemical Expediter (MMAC) and HazMat Coordinator (line stations) are responsible for Maintaining the facility Chemical Information List (CIL) and master MSDS files by:

(1) Establishing and maintaining a spreadsheet (Chemical Information List/CIL) with the product name, part number, product category (e.g., oils & lubricants, paints & additives, adhesives & sealants, solvents & cleaners, etc.), storage location(s), and use of each chemical product used at their facility.

(2) Using the CIL to perform a chemical inventory periodically, as appropriate for the activity level at their facility, to ensure the accuracy of the list.

(3) Establishing a filing system for material safety data sheets (MSDS) with hard copies of each chemical product and a cross-reference and/or indexing system that expedites location of any particular MSDS by the information listed on the CIL.

(4) Making the CIL and MSDS files available electronically as feasible, in accordance with AVN information system requirements and resources.

(5) Cross-checking each chemical product purchase request against the CIL to:

(a) Determine the need for referring the request to the Safety Staff for review, and
(b) Ensure the availability of a MSDS for the requested product.

(6) Obtaining a MSDS for each requested product and:

(a) Forwarding a copy of the MSDS to the Safety Staff if the product has not been previously purchased.

(b) Cross-checking the MSDS revision date against the MSDS for same product already on file to identify updates.

(7) Replacing existing each out-of-date MSDS with the updated version, as applicable.

(8) With regard to any out-dated documents or discontinued products:

(a) Filing the out-of–date MSDS in an archive file to be maintained in perpetuity.

(b) Removing the discontinued product listing from the active CIL to an archive CIL.

(c) Removing the discontinued product MSDS from the electronic database, as applicable.

(9) Cross-checking chemical products received against the CIL and MSDS files to ensure listing and availability.

(10) Informing co-workers of the availability of the CIL and MSDS files by announcement and/or electronic mail message and by posting of a notice in a prominent place.

*CHAPTER V. HAZARDOUS MATERIALS MANAGEMENT

*13. CHAPTER V. WORK PRACTICES

This section contains work practices for Highly Toxic Chemicals, Highly Flammable Liquids and Aerosols, Corrosive Chemicals, Reactive Chemicals, Fuel System Maintenance, Aircraft Fuel Servicing (Fueling and De-fueling), Dip Tanks, Aircraft Survival Equipment and Abrasive Blasting Units applicable to Aircraft Maintenance and Engineering Division, AVN-300, personnel.

A. HIGHLY TOXIC CHEMICALS WORK PRACTICES

(1) Examples

Alodine; Alu-Gold; dichloromethane (paint stripper); epoxy paints, primers, adhesives & sealants; Iridite; polyurethane paints.

(2) When handling or using toxic chemicals, AVN-300 personnel must:

(a) Wear personal protective equipment (PPE) that is suitable for the chemical and task (refer to the table below or the chemical's MSDS).

(b) Avoid skin contact with liquid or vapors and remove contaminated clothing.

(c) Avoid skin contact whenever possible and wash areas of contact with soap and warm water or as the MSDS otherwise specifically instructs.

(d) Avoid contact with clothing (contact ESH in case of clothing contaminations).

(e) Launder contaminated clothing before wearing.

(f) Clean up spills immediately with rags, absorbent pads or socks, or granular absorbents and place the materials in the proper closed container for disposal (see the AVN-300 *Waste Management Plan*).

(g) Decontaminate tools and environmental surfaces as specifically indicated on the MSDS.

(h) Use ONLY in open and/or well-ventilated areas and avoid using in confined spaces whenever possible.

(i) Become familiar with the signs and symptoms of exposure to any highly toxic chemicals being used.

(3) PPE for Commonly Used Health Hazard Chemicals

Chemical	Rating	Gloves (hand contact is expected)	If splash may occur	
			Eye/Face Protection	Apron
Alodine (chromates)	3	Neoprene or PVC	Goggle or face shield	Rubber
Alu-Gold (chromates)	3	Neoprene or PVC	Goggle or face shield	Rubber
Dichloromethane	3	Polyethylene	Goggle or face shield	Rubber
Epoxy sealants (epoxy compounds)	3	Nitrile, butyl or rubber	Goggle or face shield	Rubber
Iridite (chromates)	3	Neoprene or PVC	Goggle or face shield	Rubber

B. HIGHLY FLAMMABLE LIQUIDS & AEROSOLS

(1) Examples

Acetone; acrylic adhesives; aerosol paints & primers; epoxy paints, primers, adhesives & sealants; isopropanol (IPA); jet fuel; methanol; methyl ethyl ketone (MEK); paint thinners/reducers; polyurethane paints & primers; toluene; xylene.

(2) When handling or using highly flammable liquids or aerosols, AVN-300 personnel must:

(a) Avoid use in the presence of ANY source of ignition, including electrical or other spark-producing tools or equipment, potential for static electricity or frictional heat, tools or equipment that generate heat or flames, hot surfaces, oxidizing chemicals or other reactive chemicals.

(b) Avoid use in an oxygen-enriched environment.

(c) Thoroughly ventilate any confined space prior to use and maintain ventilation during use.

(d) Avoid use where any source of ignition is located within the path of flammable vapors.

(e) Clean up spills immediately with rags, absorbent pads or socks, or granular absorbents and place the materials in the proper closed container for disposal (see the AVN-300 *Waste Management Plan*).

(f) Use a bonding strap/wire when transferring liquids between metal containers.

(g) Obtain a *hot work permit*, in accordance with the AVN-300 Fire Prevention Plan, before performing any welding, cutting and brazing outside of the Welding Shop.

(3) Flammability Characteristics Of Commonly Used Chemicals

Chemical	Rating	Flashpoint	Vapor Density
Acetone	3	0°F	Heavier than air
Epoxy & Polyurethane paints (typical)	3	24°F	Heavier than air
Aerosol paint (typical)	3	-156°F	Heavier than air (propellant is lighter than air)
Lacquer thinners & reducers	3	<20°F	Heavier than air
Methanol	3	52°F	Slightly heavier than air
Toluene	3	45°F	Heavier than air
Isopropanol (IPA; Isopropyl alcohol)	3	53°F	Heavier than air
Methyl ethyl ketone (MEK)	3	23°F	Heavier than air

C. CORROSIVE CHEMICALS

(1) Examples

Alodine; Alu-etch, Iridite.

(2) When handling or using corrosive chemicals, AVN-300 personnel must:

(a) Wear the appropriate personal protective equipment, particularly hand and face protection.

(b) Store the corrosive materials only in their original containers or in designated hazardous waste containers.

(c) Avoid storing corrosive liquids in glass containers.

(d) Wear solid/closed top shoes or overshoes.

(e) Add acid to water (NEVER the reverse) when mixing.

(3) PPE for Commonly Used Corrosive Chemicals

Chemical	**Gloves (hand contact is expected)**	**If Splash may occur**	
		Eye/Face Protection	**Apron**
Alodine (chromic acid)	Neoprene or PVC	Goggles & face shield	Rubber
Alu-Etch (phosphoric acid)	Rubber	Goggles & face shield	Rubber
Iridite (chromic acid)	Neoprene or PVC	Goggles & face shield	Rubber

D. REACTIVE CHEMICALS

(1) Examples

AVN-300 does not currently use any chemical with a reactivity rating greater than 1. Examples of reactive chemicals with lesser ratings that are used in AVN-300 operations include chromic acid (Iridite and Alodine); phosphoric acid (acid etch); isocyanates (polyurethane hardeners/activators); epoxy hardeners/activators.

(2) When handling or using chemicals, AVN-300 personnel must:

(a) Avoid mixing two or more chemicals except as directed by the chemical manufacturer.

(b) Place chemicals only in designated containers.

(c) Place contaminated rags and contaminated solid wastes only in designated containers.

(d) Avoid using the same container for more than one type of chemical.

E. FUEL SYSTEM MAINTENANCE

(1) When performing fuel system maintenance, AVN-300 personnel must employ the following safety practices:

(2) Preparation

(a) Before commencing work on an aircraft fuel tank, the person responsible for performing the work must ensure that:

1 Residual fuel that cannot be withdrawn by normal de-fueling procedures is drained from the tanks by removal of tank access plates.

2 Air ventilation procedures are immediately initiated upon opening of the tank.

3 Residual fuel is siphoned out of the tank or manually sponged or mopped up from tank low points or where trapped by baffles or other internal structural members.

4 Vapors are prevented from entering the tank or the section undergoing repairs by plugging or taping interconnecting openings to other fuel system tanks or lines and vent openings or manifolds.

5 Procedures are taken to guard against the accumulation of static electrical charges on the aircraft wing section or tank.

(b) Before commencing work on an aircraft fuel tank, the person responsible for performing the work must ensure that equipment and materials are in place to prevent fuel from excessively wetting the undersurface of the wing or dripping to the ground or ramp to form pools.

(3) Ventilation

(a) A tank, compartment or area may be considered adequately ventilated when the flammable Jet A fuel vapor concentration remains at or below 0.12% by volume (20% of the Lower Explosive Limit (LEL), as indicated by a calibrated and properly functioning air monitoring device operated by a trained and qualified person.

(b) Only air movers designed to operate by expansion of compressed air or steam may be used to ventilate aircraft fuel tanks. Compressed air shall not be introduced directly into aircraft fuel tanks for air ventilation purposes.

(c) During ventilation procedures, personnel responsible for ventilating the system must ensure that:

1 Spark and/or flame producing tools and equipment may not be used within 25 feet of the ventilation.

2 Aircraft electrical circuits and radar equipment that are in vapor-hazardous areas must be de-energized.

3 At least one extinguisher having a rating of not less that 20-B and a minimum capacity of 15 lb of agent shall be located within 50 ft (15.2m) of the aircraft.

(d) During ventilation procedures conducted within a hangar, personnel responsible for ventilating the fuel system must ensure that tests are conducted initially and periodically thereafter to determine if any flammable vapor concentration over 20 percent of the lower flammable limit (0.12% by volume of Jet A fuel) are present anywhere within the hangar. Personnel will take immediately cease operations if those concentrations are exceeded and continue monitoring until vapor concentrations are below 20% of the LEL.

(4) Equipment & Operations

(a) No flame and/or spark producing tools or equipment, including portable lamps, power tools and spark-producing hand tools, may be used inside an aircraft fuel tank or within 25 feet of any fuel system vents or fuel tank openings unless Jet A fuel vapor concentrations are below 0.12% by volume (20% of the LEL).

(b) Only lamps and tools that are clearly labeled as approved for Class I, Group D, Division I locations may be used within a fuel tank or within 25 feet of any fuel system vents or fuel tank openings for as long as Jet A fuel vapor concentrations exceed 0.12% by volume (20% of the LEL).

(c) During work on an aircraft fuel tank, the person responsible for performing the work must ensure that:

1 All electrical and manual controls to the affected tank or in the vapor hazard area are locked and/or tagged out.

2 Portable electrical lights and flashlights used in tank repair operations are listed for use in Class I, Group D, Division I hazardous locations.

3 Removal of existing sealant is accomplished with non-sparking metallic or hardwood scrapers. Plastic scrapers that tend to accumulate a static electric charge cannot be used.

4 Structural rework is performed with pneumatic tools.

(d) During work on a bladder-type aircraft fuel tank, the person responsible for performing the work must ensure that:

1 Fuel cell repair areas shall be well ventilated and segregated from other maintenance or assembly areas.

2 Upon reinstallation of the cell, air ventilation procedures are started again and maintained until the fuel cell is closed.

F. AIRCRAFT FUEL SERVICING (FUELING & DE-FUELING)

(1) When performing aircraft fuel servicing operations (fueling & de-fueling), AVN-300 personnel must employ the following safety practices:

(2) Fire Protection

(a) A trained and qualified person must specifically oversee the fire safety and the procedures being used for each fuel transfer operation, including the handling of the fire protection equipment and spill emergency precautions.

(b) At least two extinguishers, each with a minimum rating of at least 80-B-C and a minimum capacity of 125 pounds of agent shall be located within a 50 foot distance of the aircraft undergoing fuel servicing operations.

(3) Fueling/De-fueling Location

(a) Aircraft fuel servicing must be performed outdoors. Fuel trucks are not permitted inside any hangar.

(b) Aircraft being fueled/de-fueled must be positioned so that aircraft fuel system vents or fuel tank openings are not closer than 25 feet to any hangar or service building, or within 50 feet of any combustion and ventilation air-intake to any boiler or heater.

(4) Equipment & Operations

(a) Aircraft fuel servicing vehicles or carts shall not be positioned within a 10 foot radius of aircraft fuel system vent openings and parking brakes must be set during fuel servicing operations.

(b) No other simultaneous maintenance operation that could constitute a source of ignition is permitted on any aircraft being fueled/de-fueled or within 50 feet of the aircraft fuel system vents, fuel tank openings, or fuel servicing vehicle.

(c) All open flame and spark-producing equipment or devices, including internal combustion engines, battery chargers, ground power units, electrical tools and photographic equipment, may not be operated with 50 feet of aircraft fuel system vents or fuel tank openings during fuel transfer operations.

(d) Personnel may not carry lighters or matches on their person while engaged in fuel servicing operations or place them in or near fueling equipment at any time.

(e) Equipment performing aircraft servicing functions shall not be positioned within a 10 foot radius of aircraft fuel system vent openings.

(f) Fuel nozzles shall not be permitted to drag on the ground.

(g) Fuel servicing shall not be performed on a fixed wing aircraft while an onboard engine is operating.

(h) Aircraft equipment, including combustion heaters (e.g., wing and tail surface heaters, integral cabin heaters), radio, radar, strobe lights and electronic transmitting equipment shall not be operated during fuel transfer operations.

(i) Only intrinsically safe communication equipment may be used during aircraft fuel servicing operations within 10 feet of the fueling equipment or the fill or vent points of aircraft fuel systems.

(j) Fuel servicing operations must be suspended where there are lightning flashes in the immediate vicinity of the airport.

(5) Anti-static Bonding

(a) Prior to making fueling connection to the aircraft, Flight Line personnel must ensure that the fueling equipment is bonded to the aircraft by use of a cable and shall maintain the bonding integrity until fueling connections have been removed.

(b) Bonding and fueling connections must be disconnected in the reverse order of connection.

(c) Grounding of the aircraft during fueling is not permitted.

(d) Where fueling over wing, the nozzle must be bonded with a nozzle bond cable having a clip or plug to a metallic component of the aircraft that is metallically connected to the tank filler port. The bond connection shall be made before the filler cap is removed. If there is no plug receptacle or means for attaching a clip, the operator shall touch the filler cap with the nozzle spout before removing the cap and keep the spout in contact with the filler neck until fueling is completed.

(e) When transferring aircraft fuels by hose into a tank or drum, the hose shall be extended and fixed below the liquid level of the receiving tank to reduce the hazard of liquid surface electrostatic generation unless a bonding device is in use.

(6) Spill Response

(a) Fuel servicing equipment must be properly maintained and removed from service in the event of a leak or malfunction.

(b) Where a spill is observed, the fuel servicing shall be stopped immediately, and the operation shall not be resumed until the spill has been cleared and conditions are determined to be safe.

(c) Flight Line personnel shall immediately notify MMAC security at 954-3444 (or the Line Station's local emergency contact) if a spill covers over 10 feet in any direction or is over 50 ft^2 in area or is otherwise a hazard to persons to property.

G. DIP TANKS

(1) Examples

Covered operations include the surface treatment dip tanks in the Paint Shop, the solvent degreasing/cleaning tank on the west wall of the Hangar 9 high bay, the degreasing/cleaning tanks and spray cleaning machine in the Wheel & Brake Cleaning Shop, and the fluorescent dye tank in the Non Destructive Test (NDT) Shop. Similar facilities in any FIFO must meet the same requirements as specified for the above operations.

(2) When operating a dip tank, AVN-300 personnel must:

(a) Turn on the ventilation system, where provided, before beginning tasks involving use of the dip tank.

(b) Wear the appropriate protective clothing, including apron, gloves and goggles, as required, while performing tasks involving the use of the dip tank.

(c) Report and obtain medical treatment for any abrasion, cut, lesion, rash, burn or open sore when working with dip tanks containing corrosive chemicals.

(3) Before cleaning dip tank, AVN-300 personnel must:

(a) Completely drain the contents of the tank.

(b) Clear and ventilate any areas in which hazardous vapors may accumulate.

(4) For purposes of dip tank maintenance, AVN-300 personnel must, at least quarterly:

(a) Inspect hoods and ductwork, where provided, for corrosion or damage.

(b) Check airflow to ensure adequacy.

(c) Inspect dipping and coating equipment, including covers, drains, overflow piping, and electrical and fire-extinguishing systems where provided, and promptly correct any deficiencies.

(d) Thoroughly clean and ventilate tanks containing flammable or combustible materials before performing any welding, cutting or other flame and/or spark producing tasks.

H. AIRCRAFT SURVIVAL EQUIPMENT

(1) With regard to explosive materials intended for use with aircraft survival equipment, AVN-300 personnel must:

(a) Ensure that all flares, squibs and other potentially explosive devices are stored in the designated magazine when not actually in use or installed in a survival kit.

(b) Avoid the handling or use of open flames or spark producing equipment in an area in which flares, squibs and other potentially explosive devices are being handled or stored.

(c) Handle and use all flares, squibs and other potentially explosive devices in accordance with manufacturer safety instructions.

(d) Contact AMP-100A or the AVN-300 Safety Office for instructions on disposal of unusable flares, squibs and other potentially explosive devices (NOTE: devices will be turned over to the Oklahoma Department of Public Safety for training purposes and/or detonation).

I. ABRASIVE BLASTING UNITS

(1) With regard to the use and maintenance of abrasive blasting units, AVN-300 personnel must:

(a) Keep floors and areas surrounding the unit as free as practicable from accumulation of blasting media and dust.

(b) Inspect integral gloves and seals/gaskets for holes, tears or other damage and replace any defective components prior to using the equipment.

(c) Ensure that all compartment doors and panels are tightly closed before using the unit.

(d) Avoid using the unit if the work protrudes from the blasting compartment or otherwise prevents a tight seal upon closure of the compartment door.

(e) Avoid using the unit on work that is contaminated with flammable or combustible liquids.

(f) Use hearing protection while operating an abrasive blasting unit.

CHAPTER VI. RECORDS

1. RECORD KEEPING AND RECORDING

A. GENERAL

This section applies to record keeping and posting requirements for occupational injuries and illnesses. Records of occupational injuries or illnesses that occur in FAA facilities are important tools for monitoring occupational health and safety problems and solving them.

B. OSHA REQUIREMENTS

Occupational Safety and Health Administration (OSHA) regulations require employers to maintain occupational illness and injury records. Generally, these records are to be maintained for thirty years past the duration of the employee's employment. Responsibility for compliance with these requirements resides with management. This will generally be accomplished with the landlord organization, region or center for AVN facilities. FAA must keep injury and illness records for each facility with eleven (11) or more employees. Employees whose work is dispersed through many FAA facilities must have records on file at the place where the employee reports for work or from which he is paid.

C. DEATH

Death must be recorded regardless of the length of time between the injury and death.

D. OCCUPATIONAL INJURY

An Occupational Injury is any injury such as a cut, fracture, sprain or amputation that results from a work-related accident or from exposure involving a single incident in the work environment. Occupational injuries must be recorded if they result in:

(1) Death.

(2) Hospitalization of five or more employees.

(3) One or more lost work days.

(4) Restriction of work or motion.

(5) Loss of consciousness.

(6) Transfer to another job.

(7) Medical treatment, other than first aid.

E. OCCUPATIONAL ILLNESS

An Occupational Illness is any abnormal condition or disorder other than one resulting from an occupational injury caused by exposure to environmental factors associated with employment. Occupational illnesses include acute and chronic diseases which may be caused by inhalation, skin absorption, ingestion, direct contact with toxic substances or harmful agents. All occupational illnesses must be recorded regardless of severity.

F. MEDICAL RECORDS

Medical examinations may be required of some AVN employees as described under the Medical Surveillance Section. Employees will be informed of the location and availability of the associated records and how to access them.

G. SAFETY AND ENVIRONMENTAL RECORDS

(1) Accident

(2) Hazardous Materials Disposal

(3) Vehicle operation

(4) Physicals

(5) Respirator Fit Test - CFR 1910.1050

(6) Safety Glasses

(7) Safety Shoes

(8) Exposure Monitoring - CFR 1910.20

(9) Notice of Unsafe or Unhealthful Working Condition

CHAPTER VII. FACILITY INSPECTIONS

1. OSHA OFFICIAL INSPECTIONS

A. BACKGROUND

Under the Occupational Safety and Health Act of 1970, the Occupational Safety and Health Administration (OSHA) is authorized to conduct workplace inspections. OSHA must have a specific reason for the inspection. The specific reasons include imminent danger, catastrophes and fatal accidents, employee complaints, general inspections, follow-up inspections, and records review.

(1) Imminent Danger: An imminent danger is any condition where there is reasonable certainty that a danger exists that can be expected to cause death or serious physical harm immediately or before the danger can be eliminated through normal enforcement procedures. OSHA is informed of imminent danger situations generally by an employee notification.

(2) Catastrophes and Fatal Accidents: Catastrophes and Fatal Accidents must be reported to OSHA by the employer through AMP-100 within eight (8) hours. A catastrophe is defined as the hospitalization of three or more employees and/or a fatality. OSHA will inspect all catastrophes and fatalities.

(3) Employee Complaints: Every employee has the right to request an OSHA inspection when the employee feels he or she is in imminent danger from a hazard or when he or she feels that there is a violation of an OSHA standard that threatens physical harm.

(4) General Inspections: OSHA may inspect specific high hazard industries, occupations or health substances, or other industries identified by OSHA at intervals specified by OSHA.

(5) Follow-up Inspections: A follow-up inspection is held to determine if previously cited violations have been corrected.

(6) Records Review: A records review may be held by OSHA to determine whether there will be a comprehensive inspection (general inspection) of the workplace.

B. INSPECTION PROCEDURES

The following procedures are to be followed if an OSHA inspector arrives at an AVN facility.

(1) Upon the arrival of an OSHA Compliance Safety and Health Officer (CSHO) at an AVN facility, the CSHO should be escorted to the nearest reception area, office, or waiting room. The CSHO should not be escorted through any industrial area unless absolutely necessary.

(2) The OSHA CSHO shall be asked to wait while the safety representative is contacted. The safety representative is the person or alternate that is designated to be the single point of contact for the safety and health of employees or the environment at each facility. At Mike Monroney Aeronautical Center, AMP-100 should be notified. At all other facilities, the safety manager or designated representative should be notified that an OSHA inspector is on the premises and where the inspector can be found.

(3) If a designated safety representative is not available, the OSHA inspector should be asked whether he or she can return when the designated safety representative becomes available UNDER NO CIRCUMSTANCES SHOULD THE INSPECTOR BE REFUSED A RIGHT OF ENTRY. If the inspector is not willing to return at a later time, the facility manager should appoint a designated representative.

(4) The designated AVN representative (henceforth stated as AVN) will request that the OSHA inspector(s) present identification. AVN will copy down the name(s), agency, position, office address and phone number of the inspectors for the record. AVN will also ask for the purpose of the inspection. AVN will inquire if the inspector is planning to take environmental samples of the work place. If the inspector will be taking environmental samples, determine if the collection can be scheduled when a government furnished industrial hygienist (IH) is available.

(5) Prior to the inspection, AVN will make a telephone notification to Environmental, Safety, and Emergency Management Division, AMP-100 (405-954-5584 or 405-954-3503). Specific instructions may be given by AMP-100 at this time. AVN will inform AMP-100 if work environment samples will be taken. A decision will be made to either send AMP-100's industrial hygienist or obtain a local IH to take concurrent samples.

(6) The OSHA inspector should hold an opening conference. Personnel in the conference shall include at a minimum, the OSHA personnel and the AVN representative. Comprehensive notes should be taken to record proceedings.

(7) A union representative shall be allowed to accompany the AVN representative and the OSHA CSHO on the inspection. This representative shall also be invited to attend the opening and closing conferences.

(8) A closing conference shall be held at the conclusion of the inspection.

(9) Rules for the inspection process include:

(a) Imminent Danger, Catastrophes and Fatal Accidents, Employee Complaints and Follow-up Inspections:

1 The CSHO is always escorted directly to the area under question. Do not leave the CSHO unattended or allow him/her to wander off in other directions.

NOTE: AVN should choose the path to the identified site very carefully.

2 Anything the CSHO observes while on site may be included in the inspection.

3 The CSHO is allowed to inspect only the particular complaint, dangerous situation, or accident, briefed at the opening conference, as well as areas seen on the way to the inspection site.

(b) General Inspections and Records Reviews:

1 The CSHO can inspect any area that is deemed applicable.

2 AVN will cooperate fully with the inspector during inspections/records reviews.

(c) Photographs:

1 The AVN representative should take a camera along with him/her during the inspection.

2 If the CSHO takes any photographs, AVN should take a duplicate photograph of the same item or situation.

(d) Notes: AVN should take detailed notes on:

1 Where the inspector went.

2 What the inspector saw or was shown.

3 With whom the inspector spoke.

4 Questions asked by the inspector.

5 Answers given and by whom.

NOTE: A tape recorder may be helpful for compiling this information later in writing.

(e) Other Precautions:

1 Never volunteer any information.

2 Each questions should be answered honestly and accurately. Always cooperate with the CSHO.

3 If an answer is not known, state that you do not know the answer. Try to find an answer before the end of the inspection.

4 If an answer cannot be given to the CSHO prior to the end of the inspection, obtain the answer as soon as possible and inform the CSHO by phone and with a follow-up letter.

(f) Closing Conference: If abatement dates are discussed for non-compliance issues, the dates must consider:

1 Reasonable, achievable time periods to abate the condition.

2 Funding, which may be required to correct the condition, including the lead time to acquire the funds.

3 Be sure that the established time limit is one that can be met.

(g) Written Report:

1 After the inspection, notify AMP-100, (405) 954-5584, to discuss the inspection.

2 A report to AMP-100 will be prepared within two weeks after the inspection, summarizing the visit and outlining details of the inspection.

3 AVN will retain a copy of the report for its files.

CHAPTER VII. FACILITY INSPECTIONS

2. SELF-INSPECTIONS

A. GENERAL

All areas of AVN-300 will be inspected by the designated inspector or alternate at least annually. The designated inspector or alternate will be accompanied by a supervisor and an employee representative of the area being inspected. FAA Form 3900-1, Occupational Safety and Health Inspection Report, will be used to record the results of the inspection. The original of the inspection will be furnished to AMP-100. A copy will be retained in the Branch file for two (2) years. (Reference form at the end of this section.)

OCCUPATIONAL SAFETY AND HEALTH INSPECTION REPORT, FAA FORM 3900-1

U.S. Department of Transportation
Federal Aviation Administration

OCCUPATIONAL SAFETY AND HEALTH INSPECTION REPORT

RIS: PT 3900-1

Workplace Inspected (Facility)	Date of Inspection

To: (Facility Manager or Safety and Health Manager	From (Inspector-Name/Title)

Management Representative (Name/Title)	Employee Representative (Name-Title)

Unsafe or unhealthful working conditions which are identified during inspection and which do not comply with FAA adopted safety and health standards (including standards issued by the Occupational Safety and Health Administration) should be described below. Abatement dates should be noted for each deficiency listed.Where all deficiencies identified below will be corrrected within 30 working days from the date of the inspection, the inspection report (FAA Form 3900-1) may serve as the Notice of Unsafe or Unhealthful Condition (FAA Form 3900-2)

Item No.	Description of Unsafe or Unhealthful Condition (Reference any applicable safety and health standard)	Abatement Date (or recommended abatement period)

(Continue on reverse, if necessary)

FAA FORM 3900-1 (11-81) Supersedes Previous Editions

CHAPTER VII. FACILITY INSPECTIONS

3. INSPECTIONS BY AMP-100

A. GENERAL

*(1) AVN-300 area, including the Line Maintenance Stations, will be inspected by AMP-100, accompanied by a supervisor and an employee representative of the area being inspected, at least annually. If the condition of the inspected area is satisfactory, AMP-100 will report the inspection on FAA Form 3900-1, Occupational Safety and Health Inspection Report. If unsatisfactory conditions are detected, FAA Form 3900-1 or a narrative report will serve as the Notice of Unsafe or Unhealthful Condition. The original of the report will be forwarded to the Manager, Aircraft Maintenance and Engineering Division, AVN-300. (See form at the end of Chapter VII, Section 2).

(2) Immediately upon receipt of Notice of Unsafe or Unhealthful Condition, the notice will be posted either at a location to which employees report each day or at the location of the discrepancy until such time as the unsatisfactory condition has been corrected.

CHAPTER VII. FACILITY INSPECTIONS

4. INTERMITTENT INSPECTIONS

A. GENERAL

A member of AMP-100 shall perform intermittent inspections of AVN-300 facilities in conjunction with a branch manager. The primary objective of these inspection is to evaluate the overall organizational safety effort, offer advice and assistance and identify safety problems requiring higher levels of management action. All supervisors and employees shall be alert to identify hazardous conditions on a day-to-day basis.

CHAPTER VIII. MACHINE GUARDING AND SAFETY DEVICES

1. SAFEGUARDS

A. BACKGROUND

AVN-300 employees use a number of different types of machines, with many different moving parts that may create hazards for employees working with and around them. Safeguards are essential for protecting workers from needless and preventable injuries. This chapter is intended to inform applicable employees about the hazards machines with moving parts create and how they can be safeguarded.

The role of AVN is to ensure that the manufacturer's machine guards are kept in place and proper working order. AVN employees will not be designing and installing machine guards.

(1) Requirements for Safeguards: Any machine part, function, or process, which may cause injury, will be safeguarded. Dangerous moving parts in the following three basic areas require safeguarding.

(a) Point of operation - the point where work is performed on the material, such as cutting, shaping, boring or forming of stock.

(b) Power transmission apparatus - all compounds of the mechanical system, which transmit energy to the part of the machine performing the work, including flywheels, pulleys, belts, connecting rods, couplings, spindles, chains, cranks and gears.

(c) Other moving parts - all parts of the machine which move while the machine is working, including reciprocating, rotating, and transverse moving parts, as well as feed mechanisms and auxiliary parts of the machine.

(2) The purpose of the machine guard is to protect the employee from mechanical hazards. All safeguards must meet the following requirements:

(a) Prevent hands, arms and any other part of an employee's body from contacting dangerous moving parts.

(b) Made of durable material that will withstand conditions of normal use and cannot be easily removed.

(c) Firmly secured to the machine.

(d) Prevent objects from falling into moving parts of a machine.

(e) Not create another hazard themselves by preventing a worker from performing the job quickly and comfortably.

(f) If possible, a safeguard will allow the machine to be lubricated without removing it. When safeguards must be removed for machine service, the provisions of the Lockout/Tagout Program will be strictly adhered to and all safeguards will be replaced when maintenance is finished.

(3) Engineering controls are the method of choice for machine guarding. When engineering controls are not available, or are not capable of fully protecting the employee, operators will wear protective clothing or personal protective equipment as needed. Protective clothing and equipment will be:

(a) Appropriate for the particular hazards.

(b) Maintained in good condition.

(c) Properly stored when not in use, to prevent damage or loss.

(d) Kept clean, fully functional, and sanitary.

(e) Protective clothing and equipment will be available for different parts of the body. Face shields, safety goggles, and glasses can protect eyes and face from splashing particles or chemicals. Gloves of many different types will be available as appropriate. Hearing protection may be needed for employees operating or near noisy machines or aircraft. The remainder of the body will be protected using full-body suits, aprons, gloves and safety shoes or boots, as appropriate.

(4) Training: Applicable employees will be provided with instruction and hands-on training, by their supervisor, in order for safeguarding systems to provide effective protection in the following:

(a) A description and identification of the hazards associated with particular machines or equipment.

(b) The safeguards themselves, how they provide protection, and the hazards for which they are intended.

(c) How to use the safeguards and why.

(d) How and under what circumstances safeguards can be removed and by whom.

(e) What to do if a safeguard is damaged, missing, or unable to provide adequate protection.

(f) Employees will be trained any time new or altered safeguards are introduced into the workplace.

CHAPTER IX. LOCKOUT/TAGOUT PROGRAM

1. PROTECTION AGAINST INADVERTENT OPERATION

A. BACKGROUND

*Typical sources of hazardous energy found in the Aircraft Maintenance and Engineering Division, AVN-300, are electrical, hydraulic, pneumatic, mechanical and kinetic (energy of motion or rotation of parts).

B. OBJECTIVE

These procedures establish minimum requirements for lockout and/or tagout of hazardous energy during servicing or maintenance. They shall be used to ensure the unexpected energization, start-up, release of stored energy, or sudden movement of aircraft controls surfaces are prevented.

C. RESPONSIBILITIES

All equipment shall be locked out or tagged out to protect against accident or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve or other energy isolation device when it is locked or tagged out. The following employees shall be instructed in the safety significance of the lockout/tagout procedure.

(1) Authorized Person: Those mechanics, technicians and service personnel who maintain or repair aircraft, aircraft systems, ground support equipment or any other equipment where hazardous energy is present. Authorized persons are those employees who install or remove lockout or tagout devices.

(2) Affected Person: An employee or contractor whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed. These are staff and support personnel and flight crew members. They shall be verbally notified of lockout/tagout procedures when they are present during maintenance or service activities.

D. LOCKOUT/TAGOUT PREPARATION

(1) Review equipment schematic drawings (where available) or make a survey to locate and identify all isolating devices to be certain which circuit breakers, valves, or other energy isolation devices apply to the equipment to be locked or tagged out. Be certain all energy sources have been located as several energy sources (electrical, mechanical) may be involved. Types and location of energy isolating means:

(a) Electrical: For building service or maintenance or repair of fixed equipment lock or tagout circuit breaker panels. For aircraft, lockout or tagout junction boxes and circuit breakers.

NOTE: Simply taping an access panel closed is not adequate. Place a dummy plug with tag in the auxiliary power unit receptacle. For cord and plug connected equipment, place a tag on or near the conductors of the plug. Any dummy plug or other device attached to an aircraft must have a highly visible red flag attached.

(b) Hydraulic: Locate all valves to isolate system pressure and the bleed system to remove residual pressure. Lock or tag control valves and/or bleed valves prior to start of work. Also lock or tagout emergency or backup hydraulic systems prior to start of work.

(c) Pneumatic: Locate all valves to isolate system pressure and the bleed system to remove residual pressure. Lock or tag control valves and/or bleed valves prior to start of work. Also lock or tagout emergency or backup pneumatic systems prior to start of work.

(d) Mechanical: Aircraft control locks shall be in place when work is ongoing on systems where the sudden movement of control surfaces could cause injury. When locally fabricated and approved locks are installed, a red flag shall be attached to each lock and a red warning sign and tagout must be attached to the pilot's control column.

(e) Kinetic: Allow all moving parts to stop (propellers, turbines) before starting work.

(f) Residual or stored energy may be present in electrical capacitors or pressure systems.

E. SEQUENCE OF LOCKOUT OR TAGOUT PROCEDURES

(1) Notify all affected employees that servicing or maintenance is required on the machine or equipment (flight controls, hydraulic system, electrical system, etc.) and must be shut down and locked out and/or tagged out for servicing or maintenance.

(2) If machine or equipment is operating, shut it down by the normal stopping procedures (depress stop button, open toggle switch, etc.).

(3) Deactivate the switch, circuit breaker, valve, or other isolating device(s) so that the equipment is isolated from its energy source(s). Stored or residual energy (such as electrical energy in capacitors, springs, stored hydraulic and pneumatic pressures, kinetic energy on rotating parts) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, volt/ohm meter testing, indications on pressure gauges, or visual assessments as appropriate.

(4) Lockout and/or tagout the energy isolating devices with assigned lock(s) and/or tag(s).

(a) Only locks or tags identified for use with lockout/tagout procedures shall be used. These locks or tags shall never be used for other purposes.

(b) Lockout and tagout devices shall indicate the name of the employee applying the device(s).

(c) Locks shall always be used when possible. A tag shall be used in conjunction with a lock as an added safety precaution.

(d) When only tagout systems are used, it is important to recognize the following:

1 Tags are essentially warning devices affixed to energy isolating devices and do not provide the physical restraints of a lock.

2 Tags must be legible and understandable by all employees whose work operations are or may be in the area.

3 When a tag is attached to an energy isolating means (switch, flap handle, circuit breaker, etc.), it is not to be removed without the authorization of the authorized person responsible for it and it is never to be bypassed, ignored or defeated.

4 Tags may evoke a false sense of security.

5 Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

6 Tags and their means of attachment must be made of materials capable of withstanding the environmental conditions encountered in the workplace.

F. VERIFICATION OF ISOLATION

Prior to starting work on machines or equipment, the authorized employee shall verify that isolation and deenergization of the machine or equipment has been accomplished, by operating the switch, or other normal operating controls. An example, attempt to extend the leading edge slats or wing flaps, landing gear, attempt to energize starters or operate aircraft controls.

CAUTION: RETURN OPERATING CONTROLS TO NEUTRAL OR OFF AFTER ISOLATION CHECK IS COMPLETE.

NOTE: All maintenance procedures shall be performed in accordance with aircraft maintenance manuals. All cautions and warnings in the maintenance manual shall be followed. Where conflicts exist between Lockout/tagout requirements and the aircraft maintenance manual, the maintenance manual shall be followed and special procedures developed to ensure employee safety.

G. TESTING OR POSITIONING OF EQUIPMENT, MACHINE OR COMPONENTS

(1) In situation in which lockout or tagout devices must be temporarily removed from the energy isolating device and the machine or equipment energized to test, or position equipment or machine, or component, the following sequence of actions shall be followed:

(a) Clear the machine, equipment or component of tools and materials and ensure that the equipment components are operationally intact.

(b) Ensure all affected employees have been informed that the lockout/tagout devices are being removed and are clear of the machine, equipment or components.

(c) Remove any blocks which may have been placed at the point of operation or pinch points.

(d) Remove any ground jumpers attached to electrical equipment.

(e) Remove the lockout/tagout devices.

(f) Energize and proceed with testing or positioning.

(g) Deenergize all systems and reapply energy control measures in accordance with **SEQUENCE OF LOCKOUT OR TAGOUT PROCEDURES.**

H. RELEASE FROM LOCKOUT OR TAGOUT

Before lockout or tagout devices are removed and energy restored to equipment machines or components, procedures shall be followed and actions taken by the authorized employee to ensure the following:

(1) The work area shall be inspected to ensure that nonessential items have been removed, all guards have been reinstalled, and equipment, machine and components are operationally intact.

(2) The work area shall be checked to ensure all affected employees have been informed of the lockout/tagout removal and are safely positioned or removed from the area.

(3) Remove all lockout/tagout devices.

(4) Operate the energy isolating devices to restore energy to the equipment, machine or component.

I. PROCEDURES INVOLVING MORE THAN ONE PERSON OR MORE THAN ONE CREW AND SHIFT CHANGES

(1) In the preceding steps, if more than one individual is required to lockout or tagout equipment, each shall place his/her own personal lockout device or tagout device on the energy isolating device(s). When an energy isolation device cannot accept multiple locks or tags, a multiple lockout or tagout device (lockout bar) may be used. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a lock box or cabinet which allows the use of multiple locks to secure the box or cabinet. As each person no longer needs to maintain his/her lockout protection, that person will remove his/her lock from the box or cabinet.

(2) When equipment is locked or tagged out for more than one shift, note the equipment which is locked or tagged out in the "work accomplished" section of the shift turnover form.

J. OUTSIDE PERSONNEL (CONTRACTORS, PERSONNEL FROM OTHER FAA ORGANIZATIONS, ETC.)

(1) Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this standard, AVN-300 shall coordinate with the outside organization or contractor to inform each other of their respective lockout or tagout procedures.

(2) Work shall not begin until all authorized and affected persons understand and are able to comply with the agreed upon energy control procedures.

CHAPTER X. WELDING, CUTTING AND BRAZING

1. SAFETY PRECAUTIONS

A. GENERAL OPERATIONS

(1) Only employees trained in the welding techniques shall be permitted to perform gas tungsten arc welding and oxygen acetylene welding.

(2) An engine undergoing repair shall have a positive ground attached with less than 100-ohms resistance. This shall be done prior to attaching the negative lead cable from the welding units.

(3) Only compressed air tools shall be used to prepare the area for welding, i.e., veeing out or stop drilling a crack.

(4) The welding unit shall be in proper working condition and all gas cylinders shall be securely fastened to prevent tipping.

(5) The regulator and gage shall be in proper working condition.

(6) Employees, including helpers or attendants, shall use proper eye protection such as helmets, goggles or face shields during welding and/or cutting operations.

B. WELDING ON AIRCRAFT

(1) The supervisor in charge shall make arrangements for the supporting personnel to accomplish welding, cutting and brazing when necessary to repair engines on aircraft. These arrangements will include, but not be limited to:

(a) Notify welders

(b) Position aircraft

*

*(c) Designate a fire watch employee

*(2) The welding location will normally be outside the hangars and in close proximity to the welding shop. However, welding may be permitted in the hangar under the direct supervision of the AVN-300 Environmental and Safety Staff (Oklahoma City, Oklahoma only).

*(3) An employee manning a fire extinguisher shall be stationed at the aircraft until the welding process is completed.

(4) The fire watch shall have no duties other than to monitor fire safety procedures and assist in extinguishing any fires which may occur. The fire watch shall be trained in the proper use of fire extinguishing equipment.

*(5) No operations involving flammable liquids shall be permitted on the aircraft or within 200 feet of the aircraft. All welding shall be conducted on a paved surface eliminating the hazard of grass fires and providing secure footing for mechanics and equipment.

(6) Welding equipment and gasoline driven ground support equipment shall be kept at least ten feet away from the engine and fuel tank area. This provision shall be strictly enforced.

(7) Lockout/Tagout procedures shall be complied with when welding inside the thrust reverser or where hydraulic, pneumatic or electrical energy may be applied.

(8) Employees, including helpers or attendants shall use proper eye protection such as helmets, goggles or face shields during welding and/or cutting operations.

CHAPTER XI. WALKING/WORKING SURFACES, LADDERS, PLATFORMS AND MANLIFTS

1. EQUIPMENT STANDARDS

A. GENERAL EQUIPMENT REQUIREMENTS

*(1) All ladders, work stands, platforms, etc. will meet OSHA requirements. For more specific information, consult AVN-300 or AMP-100.

(2) All work stands, catwalks, platforms, etc., will have hand railings and safety locks installed before use. Ladders with bent steps or broken rungs shall not be used.

(3) Work stands, ladders, etc., will be kept free of oil, grease and hardware when in use. When in need of repair, equipment shall be removed from service, tagged with a red tag and reported to the immediate supervisor.

(4) All defective ground support or shop equipment shall be removed from service, tagged and reported to the immediate supervisor.

(5) All equipment used in the accomplishment of a job will be returned to designated areas when work is accomplished.

B. UNSERVICEABLE EQUIPMENT

(1) Unserviceable equipment tags will be used to identify any unserviceable, broken or damaged aircraft ground support item, office furniture, or other equipment, which may be a safety hazard. This will include but not be limited to work stands, ladders, jacks, power carts, fire extinguishers, electrical cords, desks, chairs, etc.

*(2) Tags will be issued by each branch office to sections and/or units as necessary. Additional tags may be ordered from the Environmental and Safety Staff, AVN-300.

(3) Tags will be placed on all unserviceable items and may only be removed by the repair activity after repairs have been made. Under no circumstances will a tagged item be used.

*(4) Corrective action will be written on the reverse side of the tag and the tag forwarded to AVN-300 for record purposes.

CHAPTER XII. VEHICLE OPERATION SAFETY PRACTICES

1. POWERED INDUSTRIAL VEHICLES

A. GENERAL

(1) Only trained and authorized operators shall be permitted to operate powered industrial vehicles.

(2) Operators shall use extreme caution when operating powered industrial vehicles.

(3) Operators shall never leave a vehicle unattended during any operation.

(4) Refueling will be performed only when the power source is turned off.

(5) Forklifts or heavy equipment shall be examined before being placed in service and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily. Defects shall be immediately reported and corrected. The truck shall be taken out of service until it has been restored to safe operating condition. All repairs shall be made by authorized personnel.

B. TUG OPERATION

The tug operator is responsible to assure that all passengers are properly seated on the installed seats and that the passenger capacity of the tug is not exceeded. Standing is not allowed while tug is in motion.

WARNING: Failure to follow this procedure could result in personal injury and property damage.

C. TRUCK OPERATION

Only trained and authorized operators shall be permitted to operate a powered industrial truck. All operator training and retraining will be documented and will include the employee's name, date, the instructor and the equipment the employee is trained to operate. The documentation will be maintained as proof of certification for employee equipment operation.

D. FORK TRUCK OPERATION

(1) Operators will use extreme caution when operating fork trucks.

(2) When picking up loads, operators will check that the weight of the object does not surpass the maximum lifting ability of the equipment.

(3) When moving loads to a new location, operators will follow all posted safety signs for pedestrian and vehicular traffic.

(4) Loads will be carried six inches above the ground to avoid the possibility of dropping the object.

(5) Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered.

E. AERIAL LIFT (CHERRY PICKER) OPERATION

(1) Truck Operation

(a) The vehicle and boom shall be operated only by adequately trained personnel.

(b) The vehicle and boom shall not be moved in a congested area without a guideman checking for adequate clearance.

(c) Before moving an aerial lift truck, the boom shall be inspected to assure that it is properly cradled and outriggers are in a stowed position.

(2) Aerial Lift Basket Operation

(a) Basket occupancy shall be limited to two persons or not more than the rated capacity of the basket.

(b) All personnel using the lift shall fasten the safety chain/bar across the access opening to the basket before operating the booms.

(c) Personnel riding in the basket shall use safety belts and lanyards at all times.

(d) Safety harness with adequate lanyards securely attached to aircraft structure or overhead hangar structure shall be used when it is necessary for personnel to leave the basket to accomplish work on various parts of the aircraft.

(e) The aerial lift truck shall not be moved when the boom is elevated in a working position with personnel in the basket.

DANGER: There are overhead crane monorails located in hangars 8 and 9 against the roof structure. These have electrical bus bars running parallel with the monorail which could be energized. Use extreme caution to avoid electrical shock.

CHAPTER XIII. GENERAL POLLUTION PREVENTION AND CHEMICAL PRODUCT MANAGEMENT

1. POLLUTION PREVENTION

A. GENERAL

AVN-300 facility management and acquisition activities must be conducted in a manner that ensures that the quantity of toxic chemicals entering any waste-stream, including any release to the environment, is reduced as expeditiously as possible through source reduction.

B. BACKGROUND

*We have been mandated to develop goals to reduce AVN-300's total releases of toxic chemicals to the environment and off-site transfers of toxic chemicals for treatment and disposal by 50% by December 3, 1999. To the maximum extent practicable, such reductions shall be achieved by implementation of source reduction practices. The baseline for measuring reductions for achieving the 50% reduction will be established by the Environmental and Safety Staff, AVN-300, in cooperation with AMP-100.

C. ACTION

A thorough internal review and audit, including cost benefit and supply support analysis shall be conducted to determine the stock program is the most effective method of supply operation. Any revisions deemed to be necessary to the acquisition process should be made. Such other steps must be taken as necessary to achieve and monitor compliance, such as minimizing stock and limiting access.

(1) Toxic Chemical Reduction and Waste Minimization. Whenever feasible, pollution should be prevented or reduced at the source. Pollution that cannot be prevented should be recycled in an environmentally safe manner. Disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner.

Clean technologies and safe alternatives to extremely hazardous substances or toxic chemicals through revisions to specifications and standards, the acquisition and procurement process, and the testing of innovative pollution prevention technologies shall be encouraged.

(2) Shelf-Life Management. Shelf-life items are inherently costly to manage because they require special management controls. Improper management of shelf-life items can result in excessive acquisition and disposal costs if the material expires before use. Shelf-life items must have at least half their life remaining at the time of receipt to be acceptable.

(a) Shelf-life codes are assigned by the manufacturer or distributor to items possessing deteriorative or unstable characteristics to the degree that a storage time period must be assigned. This time period is the longest consistent with satisfactory performance of the item when used.

(b) The date of expiration or reinspection is marked only as month/year and refers to the last day of that month.

(c) Compliance with expiration dates must be enforced. Expiration and reinspection have the same implication and shelf life cannot be extended by visual inspection. These items require testing for which we have neither the expertise or capability.

(d) Shelf-life materials will be issued on a strict first-in, first-out basis with exception for line maintenance station shipments only. No item may be shipped to a line maintenance station with less than one half of the assigned shelf life remaining.

(3) Contracts. All contracts or purchase orders for shelf-life items shall require that the items be marked with the date of manufacture and the expiration date. The contracts shall also require that the items be delivered within a specified time period from the date of manufacture.

(4) Receiving. All chemical products received shall be properly labeled with adequate information sufficient to enable employees to determine precautions necessary for their safe storage, handling and use. A Material Safety Data Sheet (MSDS) must be obtained and maintained for each product.

(5) Storage. All shelf-life items shall be stored in accordance with the special storage requirements. When no special storage instructions are provided, the items shall be stored under normal warehouse conditions.

*(6) New Products. Each product that is not part of the chemical inventory must be approved by the Environmental and Safety Staff, AVN-300, before an order is placed. The Environmental and Safety Staff will thoroughly review the MSDS, the process for which the product will be used, disposal requirements, alternative products, etc., before approving the acquisition of the product.

CHAPTER XIV. RESPIRATORY PROTECTION

1. AIR PURIFYING RESPIRATORY PROTECTION

A. GENERAL

*Although various tests have shown that respiratory protection is not required by Aviation System Standards (AVN) facilities, the Aircraft Maintenance and Engineering Division, AVN-300, has determined that voluntary respirator use is permissible. Appropriate respirators shall be used pursuant to this chapter. This chapter provides the requirements relating to air purifying respiratory protection only. An air purifying respirator is a respirator with an air purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air purifying element.

B. BACKGROUND

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for employees. This protection is provided for the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors.

C. ACTION

Respirators, training, and medical evaluations shall be provided at no cost to the employee. Employees shall be provided a medical evaluation to determine their ability to use a respirator before the employee is fit tested. (The Respirator Medical Evaluation Questionnaire form is at the end of this section.)

If a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the employee. Employees need to take certain precautions to ensure that the respirator itself does not present a hazard, by doing the following:

(1) Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning, care, and warnings regarding limitations of the respirator.

(2) Choose respirators certified for use to protect against the contaminant of concern. A label or statement of certification by the National Institute for Occupational Safety and Health (NIOSH) should appear on the respirator or packaging. It will tell how the respirator is designed and how much protection it will provide.

(3) The respirator should not be worn into atmospheres containing contaminants against which the respirator is not designed to protect. For example, a respirator designed to filter dust particles will not protect against gases, vapors, or very small solid particles of fumes or smoke.

(4) Keep track of the respirator so that a respirator that belongs to someone else is not mistakenly used.

APPENDIX C TO SEC. 1910.134:
OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA)
RESPIRATOR MEDICAL EVALUATION QUESTIONNAIRE (MANDATORY)

To the Employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A do not require a medical examination.

To the Employee: Can you read (circle one): Yes/No

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's Date: _____

2. Your Name: _____

3. Your Age (to nearest year): _____

4. Sex (circle one): Male/Female

5. Your Height: _____ft. _____in.

6. Your Weight: _____lbs.

7. Your Job Title: _____

8. A Phone Number Where You Can Be Reached by the Health Care Professional Who Reviews This Questionnaire (include the area code): _____

9. The Best Time to Phone You at This Number: _____

10. Has Your Employer Told You How to Contact the Health Care Professional Who Will Review This Questionnaire (circle one)?: Yes/No

11. Check the Type of Respirator You Will Use (you can check more than one category):
    a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).
    b. _____ Other type (for example, half- or full-facepiece type, powered air purifying supplied air, self-contained breathing apparatus).

12. Have You Worn a Respirator (circle one)?: Yes/No

If "Yes" What Type(s): _____
_____

Part A. Section 2. (Mandatory) Questions 1 through 9, below, must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

1. Do You *Currently* smoke tobacco, or Have You Smoked Tobacco In the Last Month?: Yes/No

2. Have You *Ever* Had Any of the Following Conditions?:

    a. Seizures (fits): Yes/No
    b. Diabetes (sugar disease): Yes/No
    c. Allergic Reactions That Interfere With Your Breathing: Yes/No
    d. Claustrophobia (fear of closed-in places) Yes/No
    e. Trouble Smelling Odors: Yes/No

3. Have You *Ever* Had Any of the Following Pulmonary or Lung Problems?:

    a. Asbestosis: Yes/No
    b. Asthma: Yes/No
    c. Chronic Bronchitis: Yes/No
    d. Emphysema: Yes/No
    e. Pneumonia: Yes/No
    f. Tuberculosis: Yes/No
    g. Silicosis: Yes/No
    h. Pneumothorax (collapsed lung): Yes/No
    i. Lung Cancer: Yes/No
    j. Broken Ribs: Yes/No
    k. Any Chest Injuries or Surgeries: Yes/No
    l. Any Other Lung Problem That You've Been Told About: Yes/No

4. Do You *Currently* Have Any of the Following Symptoms of Pulmonary or Lung Illness?:

a.	Shortness of Breath:	Yes/No
b.	Shortness of Breath When Walking Fast on level Ground or Walking Up a Slight Hill or Incline:	Yes/No
c.	Shortness of Breath When Walking With Other People at an Ordinary Pace on Level Ground:	Yes/No
d.	Have to Stop for Breath When Walking at Your Own Pace on Level Ground:	Yes/No
e.	Shortness of Breath When Washing or Dressing Yourself:	Yes/No
f.	Shortness of Breath That Interferes With Your Job:	Yes/No
g.	Coughing That Produces Phlegm (thick sputum):	Yes/No
h.	Coughing That Wakes You Early in the Morning:	Yes/No
i.	Coughing that Occurs Mostly When You Are Lying Down:	Yes/No
j.	Coughing Up Blood in the Last Month:	Yes/No
k.	Wheezing:	Yes/No
l.	Wheezing that Interferes With Your Job:	Yes/No
m.	Chest Pain When You Breath Deeply:	Yes/No
n.	Any Other Symptoms That You Think May Be Related To Lung Problems:	Yes/No

5. Have You *Ever* Had Any of the Following Cardiovascular or Heart Problems?:

a.	Heart Attack:	Yes/No
b.	Stroke:	Yes/No
c.	Angina:	Yes/No
d.	Heart Failure:	Yes/No
e.	Swelling In Your Legs or Feet (not caused by walking):	Yes/No
f.	Heart Arrhythmia (heart beating irregularly):	Yes/No
g.	High Blood Pressure:	Yes/No
h.	Any Other Heart Problem That You've Been Told About:	Yes/No

6. Have You *Ever* Had Any of the Following Cardiovascular or Heart Symptoms?:

a.	Frequent Pain or Tightness in Your Chest:	Yes/No
b.	Pain or Tightness in Your Chest During Physical Activity:	Yes/No
c.	Pain or Tightness in Your Chest That Interferes With Your Job:	Yes/No
d.	In the Past Two Years, Have You Noticed Your Heart Skipping or Missing a Beat:	Yes/No
e.	Heartburn or Indigestion That is Not Related to Eating:	Yes/No
f.	Any Other Symptoms That You Think May be Related to Heart or Circulation Problems:	Yes/No

7. Do You *Currently* Take Medication For Any of the Following Problems?:

   a. Breathing or Lung Problems: Yes/No
   b. Heart Trouble: Yes/No
   c. Blood Pressure Yes/No
   d. Seizures (fits): Yes/No

8. If You've Used a Respirator, Have You *Ever* Had Any of the Following Problems? (If you've never used a respirator, check the following space and go to question 9):

   a. Eye Irritation: Yes/No
   b. Skin Allergies or Rashes: Yes/No
   c. Anxiety: Yes/No
   d. General Weakness or Fatigue: Yes/No
   e. Any Other Problem That Interferes With Your Use of a Respirator: Yes/No

9. Would You Like to Talk to the Health Care Professional Who Will Review This Questionnaire About Your Answers to This Questionnaire?: Yes/No

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA).

For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10. Have You *Ever* Lost Vision in Either Eye (temporarily or permanently)?: Yes/No

11. Do You *Currently* Have Any of the Following Vision Problems?:

   a. Wear Contact Lenses: Yes/No
   b. Wear Glasses: Yes/No
   c. Color Blind: Yes/No
   d. Any Other Eye or Vision Problem: Yes/No

12. Have You *Ever* Had An Injury to Your Ears, Including a Broken Ear Drum?: Yes/No

13. Do You *Currently* Have Any of the Following Hearing Problems?:

a.	Difficulty Hearing:	Yes/No
b.	Wear a Hearing Aid:	Yes/No
c.	Any Other Hearing or Ear Problem:	Yes/No

14. Have You *Ever* Had a Back Injury?: Yes/No

15. Do You *Currently* Have Any of the Following Musculoskeletal Problems?:

a.	Weakness in Any of Your Arms, Hands, Legs, or Feet:	Yes/No
b.	Back Pain:	Yes/No
c.	Difficulty Fully Moving Your Arms and Legs:	Yes/No
d.	Pain or Stiffness When you Lean Forward or Backward at the Waist:	Yes/No
e.	Difficulty Fully Moving Your Head Up and Down:	Yes/No
f.	Difficulty Fully Moving Your Head Side to Side:	Yes/No
g.	Difficulty Bending at Your Knees:	Yes/No
h.	Difficulty Squatting to the Ground:	Yes/No
i.	Climbing a Flight of Stairs or a Ladder Carrying More Than 25 lbs.:	Yes/No
j.	Any Other Muscle or Skeletal Problem That Interferes With Using a Respirator:	Yes/No

Part B: Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

1. In Your Present Job, Are You Working at High Altitudes (over 5,000 feet) or in a Place That Has Lower Than Normal Amounts of Oxygen?: Yes/No

   If "Yes", do You Have Feelings of Dizziness, Shortness of Breath, Pounding in Your Chest, or Other Symptoms When You're Working Under These Conditions?: Yes/No

2. At Work or at Home, Have You Ever Been Exposed to Hazardous Solvents, Hazardous Airborne Chemicals (e.g., gases, fumes, or dust), or Have You Come Into Skin Contact With Hazardous Chemicals?: Yes/No

   If "Yes", Name the Chemicals, if You Know Them: _____
   _____
   _____

3. Have You *Ever* Worked With Any of the Materials, or Under Any of the Conditions Listed Below?:

a.	Asbestos:	Yes/No
b.	Silica (e.g., in sandblasting):	Yes/No
c.	Tungsten/Cobalt (e.g., grinding or welding this material):	Yes/No
d.	Beryllium:	Yes/No
e.	Aluminum:	Yes/No
f.	Coal (for example, mining):	Yes/No
g.	Iron:	Yes/No
h.	Tin:	Yes/No
i.	Dusty Environments:	Yes/No
j.	Any Other Hazardous Exposures:	Yes/No

If "Yes", Describe These Exposures: _____
_____
_____

4. List Any Second Jobs or Side Businesses You Have: _____
_____
_____

5. List Your Previous Occupations: _____
_____
_____

6. List Your Current and Previous Hobbies: _____
_____
_____

7. Have You Been in the Military Services?: Yes/No

   If "Yes", Were You Exposed to Biological or Chemical Agents (either in training or combat): Yes/No

8. Have You Ever Worked on a HAZMAT Team?: Yes/No

9. Other Than Medications for Breathing and Lung Problems, Heart Trouble, Blood Pressure, and Seizures Mentioned Earlier in This Questionnaire, Are You Taking Any Other Medications for Any Reason (including over-the-counter medications)?: Yes/No

   If "Yes", Name the Medications, if You Know Them: _____
   _____

10. Will You be Using Any of the Following Items With Your Respirator(s)?:

    a. HEPA Filters: Yes/No
    b. Canisters (for example, gas masks): Yes/No
    c. Cartridges: Yes/No

11. How Often Are You Expected to Use the Respirator
    (circle "yes" or "no" for all answers that apply to you)?:

    a. Escape Only (no rescue): Yes/No
    b. Emergency Rescue Only: Yes/No
    c. Less than 5 Hours Per Week: Yes/No
    d. Less Than 2 Hours Per Day: Yes/No
    e. 2 to 4 Hours Per Day: Yes/No
    f. Over 4 Hours Per Day: Yes/No

12. During the Period You Are Using the Respirator, is Your Work Effort:

    a. *Light* (less than 200 kcal per hour)?: Yes/No
    If "yes", how long does this period last during the average shift:
    _____hrs. _____mins.
    Examples of light work effort are *sitting* while writing, typing, drafting, or performing light assembly work; or *standing* while operating a drill press (1-3 lbs.) or controlling machines.

    b. *Moderate* (200 to 350 kcal per hour)?: Yes/No
    If "yes", how long does this period last during the average shift:
    _____hrs. _____mins.
    Examples of moderate work effort are *sitting* while nailing or filing; *driving* a truck or bus in urban traffic; *standing* while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; *walking* on a level surface about 2 mph or down a 5-degree grade about 3 mph; or *pushing* a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

c. *Heavy* (above 350 kcal per hour)?: Yes/No
If "yes", how long does this period last during the average shift:
_____hrs. _____mins.
Examples of heavy work are *lifting* a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; *shoveling*; standing while bricklaying or chipping castings; *walking* up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.)

13. Will You be Wearing Protective Clothing and/or Equipment (other than the respirator) When You're Using Your Respirator?: Yes/No

If "yes", describe this protective clothing and/or equipment
_____
_____

14. Will You be Working Under Hot Conditions (temperature exceeding 77 degrees F)?: Yes/No

15. Will You be Working Under Humid Conditions?: Yes/No

16. Describe the Work You'll Be Doing While You're Using Your Respirator(s):
_____
_____

17. Describe Any Special or Hazardous Conditions You Might Encounter When You're Using Your Respirator(s) (for example, confined spaces, life-threatening gases): _____
_____
_____

18. Provide the Following Information, If You Know It, For Each Toxic Substance That You'll be Exposed to When You're Using Your Respirator(s):
Name of the First Toxic Substance: _____
Estimated Maximum Exposure Level Per Shift: _____
Duration of Exposure Per Shift: _____
Name of the Second Toxic Substance: _____
Estimated Maximum Exposure Level Per Shift: _____
Duration of Exposure Per Shift: _____
Name of Third Toxic Substance: _____
Estimated Maximum Exposure Level Per Shift: _____
Duration of Exposure Per Shift: _____

The Name of Any Other Toxic Substances That You'll Be Exposed to While Using Your Respirator: _____
_____
_____

19. Describe Any Special Responsibilities You'll Have While Using Your Respirator(s) That May Affect the Safety and Well-Being of Others (for example, rescue, security): _____
_____
_____

*CHAPTER XV. HEARING CONSERVATION PROGRAM

1. BACKGROUND

A. PURPOSE

The Hearing Conservation Program establishes policy and procedures for managing occupational noise exposure and preventing hearing loss.

B. APPLICABILITY

This chapter is applicable to all AVN-300 employees who may be exposed to noise levels that may cause hearing damage.

C. REFERENCES

(1) Occupational Noise Exposure, 29 Code of Federal Regulations (CFR) 1910.95.

(2) Basic Program Elements for Federal Employee Occupational Safety and Health Programs, 29 CFR 1960, as revised.

(3) Executive Order 12196 of February 26, 1980, Occupational Safety and Health Programs for Federal Employees.

(4) American National Standards Institute (ANSI) Standards.

*CHAPTER XV. HEARING CONSERVATION PROGRAM

2. DEFINITIONS

A. Action Level: An exposure to an 8-hour time-weighted average of 85 decibels or more measured with a dosimeter or sound-level meter on the A-scale at slow response. The action level is the criteria for instituting noise surveys and employee participation in the Medical Monitoring Program.

B. Audiogram: A chart, graph, or table that results from an audio-metric test. An audiogram shows an individual's hearing threshold level as a function of frequency (Hz).

C. Audiologist: A professional who specializes in the study and rehabilitation of hearing and who is certified by the American Speech, Hearing and Language Association, or licensed by a State Board of Examiners.

D. Audio-Meter: An electronic instrument that measures hearing threshold levels and conforms to the requirements and specifications of the current ANSI Standard S3.6.

E. Baseline Audiogram: An audiogram against which future audiograms are compared.

F. Cut-Off Level: All sound levels at or above the cut-off level are averaged into the calculations that relate to noise exposure. All sound levels below the cut-off level are not included.

G. Decibel (dB): A unit of measurement of sound pressure level. The decibel level of a sound is related to the logarithm of the ratio of sound pressure to a reference pressure. The dB has meaning only when the reference is known. The internationally accepted reference pressure used in acoustics is 20 micropascals.

H. Hazardous Noise: Noise generated by an operation, process or procedure that is of sufficient duration and intensity to be capable of producing a permanent loss of hearing in an unprotected person. Generally, this is interpreted as persistent noise levels equal to or greater than 85 dBA or combinations of higher intensities for a duration shorter than eight hours.

I. Hearing Protection: A device used to suppress noise.

J. Hertz (Hz): A unit of measurement of frequency that is numerically equal to cycles per second.

K. Monitoring Audiogram: An audio-metric test obtained at least annually to detect shifts in an individual's threshold of hearing by comparison to the baseline audiogram.

L. Noise: Unwanted sound.

M. Noise Dose: A measure of cumulative noise exposure over a stated period, which takes into account both the intensity of the sound and the duration of the exposure.

N. Noise Dosimeter: An electronic instrument that integrates cumulative noise exposure over time and directly indicates a noise does.

O. Noise Hazard Area: Any work area with a noise level of 85 dBA or greater.

P. Representative Exposure: The measurements of an employee's noise dose or an eight-hour time-weighted average sound level that a qualified person deems representative of the exposure of other employees in that work area or job classification.

Q. Standard Threshold Shift (STS): An average hearing threshold shift of 10 dB or more at 2,000, 3,000 and 4,000 Hz in either ear. A threshold shift can be temporary or permanent. Temporary threshold shift is a change in hearing threshold, primarily due to exposure to high-intensity noise that is usually recovered in 14 to 72 hours. Any loss that remains after an adequate recovery period is termed permanent threshold shift.

R. Sound-Level Meter (SLM): An electronic instrument for the measurement of sound levels that conform to the requirements for a Type II sound level meter as specified in ANSI S1.4-1971.

S. Supervisor: A broad term that can refer to managers, program and project directors, Contracting Officers, Technical Representatives (COTR's), Site Managers, Supervisors, Department Heads, Group Heads, Branch Chiefs, Owners and/or persons that operate in a management capacity or supervisory role with respect to affected employees.

T. Time-Weighted Average (TWA) Sound Level: The sound level that, if constant over an eight-hour workday exposure, would result in the same noise dose as is measured.

*CHAPTER XV. HEARING CONSERVATION PROGRAM

3. RESPONSIBILITIES

A. AVN-300 SAFETY OFFICE

(1) Manage an AVN-300 hearing conservation program.

(2) Develop and implement a training program for employees exposed to noise hazard areas.

(3) Periodically review the Hearing Conservation Program for compliance.

(4) Provide employees access to noise survey/dosimetry records.

(5) Notify Branch Managers, and any applicable AVN and/or contractor management, when affected employees must participate in Medical Monitoring and Hearing Conservation Programs. Participation is required when noise-monitoring data show that exposures exceed the Action Level of 85 dBA over an eight-hour Time Weighted Average (TWA).

(6) Recommend the selection of hearing protection and specify performance (attenuation) requirements.

(7) Notify management of sites that have been designated as noise hazard areas.

(8) Maintain adequate supplies of hearing protection and ensure employees have an opportunity to select from a variety of hearing protection.

B. CIVIL AEROSPACE MEDICAL INSTITUTE (CAMI)

(1) Maintain a registry of all AVN-300 personnel covered under this chapter, schedule those persons for baseline and annual audiometric examinations, and provide written notification to employees of their need to avoid exposure to high noise levels (85 dBA or greater) for at least 14 hours immediately preceding audiometric tests.

(2) Provide medical evaluations, obtain an occupational history of each participant in the Medical Monitoring Program, supervise on-site audiometric testing and evaluate test results. Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a Sound Threshold Shift (STS) has occurred.

(3) Provide written notification to AVN-300 employees within 21 days of determining an STS (or other medical pathology of the ear) and explain the need and plans for further testing and/or referrals.

(4) Provide written notification to both the employee and his/her supervisor within 21 days of receiving confirming information, if additional testing establishes that a permanent significant threshold shift has occurred.

(5) Consult with AVN-300 Safety Representative and his/her supervisor regarding any employee with hearing loss, so that the workplace can be evaluated/reevaluated to ensure that no excess exposures continue to occur.

(6) Recommend to the Supervisor the reassignment of at-risk employees to low noise areas, when necessary to prevent further hearing loss or aggravation of other medical conditions.

(7) Refer employees to an audiologist or physician specialist, as appropriate.

(8) Prepare written documentation showing that personnel, who conduct audiometric testing using manual audiometers, are certified by the Council on Accreditation for Occupational Hearing Conservation, and that any person who conducts audiometric testing is responsible to a physician/audiologist.

(9) Prepare written documentation showing that audiometric test equipment has been properly calibrated in accordance with 1910.95(h)(5).

(10) Maintain audiometric test records and other information pertinent to the Medical Monitoring requirements.

(11) Provide employee access to medical records in accordance with the employee access requirements stated in this standard.

C. SUPERVISORS AND MANAGERS

(1) Report suspected hazardous noise in all areas of the supervisor's jurisdiction to the AVN-300 Safety Office so that noise monitoring can be conducted.

(2) Notify employees exposed to noise hazard areas.

(3) Maintain a roster (name, social security number and job title) of personnel who work in designated noise hazard areas (or are otherwise exposed to hazardous noise).

(4) Ensure that employees who work in designated noise hazard areas (or are otherwise exposed to hazardous noise) receive preplacement (baseline), annual and termination audiograms. Preplacement (baseline) audiograms are required within six months of an employee's first exposure to noise hazard areas.

(5) Ensure employees scheduled for audiograms are not exposed to noise hazard areas in the workplace 14 hours prior to the audiogram.

(6) Refer personnel who complain of hearing loss (or other hearing or ear problems) to CAMI for examination and/or fitting of hearing protection devices as necessary in a timely fashion (21 days or less).

(7) Ensure that employees in noise hazard areas use proper hearing protection devices.

(8) Ensure proper initial fitting and supervise the correct use of all hearing protection.

(9) Notify the AVN-300 Safety Office of any changes in operations that require noise determinations or evaluations.

(10) Ensure that hearing protection devices that have been approved are available for use by employees.

(11) Ensure that employees who participate in the Hearing Conservation Program attend required training.

(12) File and maintain certificates of course completion.

(13) Attend Hearing Conservation Program training as required for supervisors and employees.

(14) Ensure that caution signs are posted in designated noise hazard areas and that appropriate labels, decals or placards are placed on tools and equipment.

(15) Select equipment for purchase with the lowest noise emissions, where feasible.

(16) Ensure the design and application of engineering controls that are needed to reduce noise exposures to acceptable limits or to the maximum extent feasible.

(17) Properly maintain noise-producing equipment and controls to preclude noise increases. Vibrations, worn gears, faulty bearings, unbalanced fans, corroded mufflers, non-lubricated fittings and vibrating pipes can all contribute to high noise levels.

D. EMPLOYEES

Employees who work in noise hazard areas are required to:

(1) Wear hearing protection when performing the following tasks or when in close proximity to noise produced by these tasks or sources.

(a) Working in or transiting the flight line area when aircraft are operating engines or auxiliary power units.

(b) Use of portable pneumatic grinding tools and air nozzles.

(c) Riveting operations involving the use of pneumatic riveting tools and bucking tools.

(d) Functional or operational testing of Challenger aircraft electric hydraulic systems.

(e) Any time an employee determines the noise level to be a concern and hearing protection is warranted.

(f) Cooperate with supervisors, CAMI and Health and Safety personnel in activities undertaken to evaluate hazardous noise.

(g) Notify supervisors of areas, operations or equipment that may produce hazardous noise.

(h) Attend annual hearing conservation training.

(i) Visit CAMI for an annual audiogram.

*CHAPTER XV. HEARING CONSERVATION PROGRAM

4. HEARING PROTECTION METHODS

A. ENGINEERING CONTROLS

Where feasible, equipment will be procured, designed, operated and/or modified in such a manner as to prevent employee exposure to continuous noise levels above 85 dBA over an eight hour Time Weighted Average (TWA) or impulsive noise above 140 dBP. Any reduction in employee noise exposure, even if not reduced below 85 dBA, is beneficial. If engineering controls fail to reduce sound levels to within the limits, hearing-protective equipment must be used.

B. PERSONAL HEARING PROTECTION

(1) Personal protective equipment is to be used only temporarily or if engineering controls are not feasible or practical.

(2) Supervisors shall enforce the use of earmuffs and/or earplugs by employees assigned to work in areas where they will be exposed to continuous noise (without regard to duration of exposure) in excess of 85 dBA or to impulse noise in excess of 140 dB. Disposable earplugs and/or earmuffs will be made available for employee use if noise exposures under 85 dBA create a nuisance. Earplugs will be provided for the exclusive use of each employee and will not be traded or shared.

(3) Earmuffs will be provided for employees when analysis of noise environments show that the attenuation provided by earplugs is not sufficient to reduce noise exposures below 85 dBA. The user shall inspect earmuffs on a regular basis.

C. ADMINISTRATIVE CONTROLS

If hearing protective equipment or engineering controls are not sufficient to attenuate noise to less than 85 dBA, the duration of time spent in the noise hazard area shall be limited so as not to exceed the exposure limits specified in this section.

CHAPTER XV. HEARING CONSERVATION PROGRAM

5. MEDICAL MONITORING PROGRAM

A. PROGRAM PARTICIPATION

(1) Whenever an employee is routinely occupationally exposed to continuous noise at or above the Action Level or to impact or impulsive noise in excess of the limits specified in this section, the employee shall be enrolled in a Medical Monitoring Program. Employee noise exposure shall be determined without regard to any sound attenuation provided by the use of hearing protectors.

(2) Each employee placed in a job that requires participation in a Medical Monitoring Program shall undergo a physical examination before being assigned to duties that involve exposure to high intensity noise. The examination shall include a baseline audiogram, a medical examination to determine any preexisting medical pathology of the ear and a work history to document past noise exposures. The history shall include a detailed review of past work histories and possible occupational and non-occupational noise exposures. Each annual examination, conducted on Oklahoma City based AVN employees by CAMI, shall include an interim history of AVN noise exposures, a history of the use of personal protective equipment and a history of other possible occupational work or non-occupational exposures to noise. The employee must have no apparent or suspected ear, nose or throat problems that might compromise the validity of the audiogram. When an employee is determined to be suffering from an acute disease, which may compromise the validity of the test, the baseline audiogram will be delayed until the condition has abated.

(3) When it is discovered that employees have been working where they encounter hazardous noise or incur exposures that exceed the Action Level and have not had a physical examination, one shall be conducted within 30 days. The audiogram must follow at least 14 hours of no known exposure to sound levels in excess of 80 dBA. This interval should be sufficient to allow recovery from noise induced temporary threshold shift.

(4) Personnel who suffer from acute diseases of the ear shall not be placed in hazardous noise areas until the condition has abated, particularly if such diseases preclude the wearing of hearing protectors, cause hearing impairment or produce tinnitus.

(5) All employees who are enrolled in the Medical Monitoring Program must receive an annual audiogram. The management and contract health care provider for contract employees is responsible for conducting annual audiograms on applicable employees and providing documentation to confirm completion of the audiograms to Safety Personnel.

(6) All AVN employees who have participated in the Medical Monitoring Program shall receive a final audiometric examination before termination of employment, job changes within the installation that would alter noise exposure, transfer to another installation or retirement. All contract employers must provide confirming documentation to AVN-300 Management (not the actual records, but a certification from a qualified medical professional) that their employees have received an audiometric examination before termination of employment, transfer to another site or different position or retirement.

B. AUDIOMETRIC TESTING

(1) Medical Personnel

Medical personnel who perform audiometric tests must be qualified, trained and knowledgeable in operating equipment used and be under the supervision of an audiologist or physician. If manual audiometers are used, the Council for Accreditation in Occupational Hearing Conservation must certify qualifications of personnel who operate the audiometer. Hearing threshold levels will be determined by audiometers calibrated to zero reference levels of the ANSI S3.6 standard for audiometers.

C. CONDITIONS THAT REQUIRE FOLLOW-UP REVIEW OF EMPLOYEES WITH HEARING ILLNESS AND RESPONSES

(1) When a significant threshold shift is detected, a follow-up review must be conducted.

(2) An employee who is not currently using hearing protection shall be provided (and fitted as necessary) with hearing protectors and shall be trained in their use.

(3) The employee shall be provided/refitted with hearing protectors that offer greater sound attenuation, as warranted, if hearing protectors are already in use.

(4) The employee shall be trained/retrained on the hazardous effects of noise and the need to use hearing protection.

(5) The employee's work area shall be investigated to determine if work practices or changes in equipment or procedures can be made that will decrease noise hazards or if changes have resulted in an increase in noise hazards. Abatement actions will be instituted, as necessary.

*(6) If a standard threshold shift is identified, in accordance with the Occupational Safety & Health Act (OSHA) Standard 1910.91(i)(2)(ii)(B), the employee shall be fitted or refitted with adequate hearing protection and will be required to wear such hearing protection in noise areas that are equal to or greater than the action level. Management will review the following with employees that receive notification of a standard threshold shift:

(a) The effects of noise on hearing,

(b) The purpose of hearing protection,

(c) The mandatory requirement to wear hearing protection, and

(d) Disciplinary actions which may follow for failure to wear the hearing protection

*CHAPTER XV. HEARING CONSERVATION PROGRAM

6. NOISE HAZARD WARNING SIGNS

Caution signs that clearly indicate a noise hazard area and the requirements to wear hearing protection shall be posted at the entrance(s) to a noise hazard area. Decals or placards with similar statements shall be affixed to power tools and machines that produce hazardous noise levels. Signs and decals shall have wording in black letters on a yellow background.

*CHAPTER XV. HEARING CONSERVATION PROGRAM

7. EMPLOYEE TRAINING

A. Each employee who participates in the Hearing Conservation Program shall receive annual training. The training must include, but not be limited to:

(1) An overview of the AVN-300 Hearing Conservation Program.

(2) A review of the effects of noise on hearing (including permanent hearing loss).

(3) Noise control principles.

(4) The purposes, advantages, disadvantages and attenuation characteristics of various types of ear protectors.

(5) Instruction on selection, fitting, use and care of hearing protectors.

B. Supervisory and managerial personnel of affected AVN-300 and contractor employees who work in hazardous noise areas shall be provided an education program, and their responsibilities in the Hearing Conservation Program will be emphasized.

C. Personnel will be encouraged to use hearing protectors when exposed to hazardous noise in non-occupational settings (e.g., from lawn mowers, firearms, etc.).

*CHAPTER XV. HEARING CONSERVATION PROGRAM

8. RECORDS MAINTENANCE

A. Audiograms and noise exposure records shall be maintained by CAMI as a permanent part of employee medical records. If noise exposure measurement records are representative of the exposures of other employees participating in the Hearing Conservation Program, the range of noise levels and the average noise dose will be made a permanent part of the medical records of the other employees as well.

B. In addition to audiometric test data, each medical record will, as a minimum, identify:

(1) The audiometric reference level to which the audiometer was calibrated at the time of testing.

(2) Date of the last calibration of the audiometer.

(3) The name, social security number and job classification of the employee tested.

(4) The employee's most recent noise exposure assessment.

(5) The date(s) hearing conservation training was received.

C. Accurate records of the background sound pressure levels in the audiometric test rooms and data and information concerning calibration and repair of sound measuring equipment and audiometers (as well as all audiometric test data), will be maintained for the duration of the affected employee's employment, plus 30 years.

D. Accurate records of noise surveys/monitoring, results of special noise studies and records of special actions or engineering controls installed to control noise exposures will be maintained for the duration of the affected employee's employment, plus 30 years.

*CHAPTER XVI. FALL PROTECTION PROGRAM

1. GENERAL

A. BACKGROUND

AVN-300 has identified the need for fall protection for personnel performing work in elevated conditions at four feet or greater above ground level in support of aircraft maintenance. This program is designed to meet OSHA requirements in accordance with the general aviation industry practices, as applicable. Upon completion of the training specified in this chapter, use of the personal fall arrest system is mandatory for any assignment that involves work at elevated areas at four feet or greater above ground level.

B. GENERAL

AVN-300 will ensure that hazards associated with working in elevated areas over four feet in height are evaluated and controlled, and the information is transmitted to all employees. This program is intended to address issues of evaluating potential fall hazards, communicating information to employees and establishing protective measures to prevent injury.

C. RESPONSIBILITY

The AVN-300 Safety Representative is responsible for the administration of this program and has the authority to purchase new equipment, make decisions and interrupt any maintenance operation when there is a potential for serious personal injury. Each AVN-300 employee is responsible for safety at all times.

D. REGULATORY STANDARDS

OSHA - 29 CFR 1910.66
29 CFR 1926.104
29 CFR 1926.500

*CHAPTER XVI. FALL PROTECTION PROGRAM

2. PROGRAM PROCEDURES

A. PROCEDURE

The AVN-300 Safety Representative will review, evaluate and coordinate the standard practices specified by this program:

(1) On an annual basis.

(2) When changes occur to 29 CFR, FAA Orders or AC orders which prompt revision of this document.

(3) When Organization operational changes occur that prompt revision of this document.

(4) When an accident or incident relates to this area of the safety program.

B. PROGRAM IMPLEMENTATION

Effective implementation of this program requires support from all levels of management within AVN-300. This written program will be communicated to all personnel. The program encompasses the total workforce within AVN-300, including contract employees. It is designed to establish clear goals and objectives relating to fall protection.

*CHAPTER XVI. FALL PROTECTION PROGRAM

3. POLICY

A personal fall arrest system must be utilized whenever job functions require personnel to be outside safety rails installed on stands, platforms or portable support equipment at four feet or greater above ground level. All personnel must complete fall arrest training programs as described in this chapter prior to utilizing a personal fall arrest system.

*CHAPTER XVI. FALL PROTECTION PROGRAM

4. FACILITY EVALUATION

The AVN-300 Safety Representative or designee will perform an annual evaluation to determine the adequacy and condition of the fall protection equipment in each AVN-300 maintenance facility.

*CHAPTER XVI. FALL PROTECTION PROGRAM

5. TRAINING

A. GENERAL

AVN-300 will provide training for all employees exposed to fall hazards identified through this program. The AVN-300 Safety Representative will conduct initial training for new personnel prior to work being assigned in elevated areas. Recurrent training will be accomplished every three years for appropriate employees. The program shall consist of classroom and hands-on exercises and will include, but not be limited to:

(1) A description of fall hazards in the work area.

(2) Prevention, control and fall arrest systems.

(3) Equipment limitations.

(4) Procedures for using fall prevention and protection systems.

(5) Inspection and storage procedures for the equipment.

B. SCOPE

Generally, employees will be trained to recognize hazards associated with working in elevated areas and how to protect themselves from falls utilizing the equipment provided by AVN-300. Training will cover the prevention, control, inspection and utilization of personal fall arrest systems in AVN-300.

C. INITIAL TRAINING

Initial training must be completed prior to any job assignment in an elevated area that is six feet or greater above ground level. AVN-300 will provide training to ensure the purpose, function and proper use of the personal fall arrest system is understood and the knowledge and skills required for the safe application and usage is provided to each employee. This standard practice instruction will be provided to all employees receiving training.

D. RECURRENT TRAINING

This program will be made available to all employees receiving initial or refresher training. Refresher training will include procedural changes, new equipment and review of the pertinent initial training subjects. Refresher training will be conducted on a triennial or when the following conditions are met, whichever event occurs sooner.

(1) When an employee has a change in job assignments requiring work in elevated conditions.

(2) Whenever a new personal fall arrest system or equipment is acquired which incorporates new design or procedure.

(3) When a new hazard is identified in the work place.

*CHAPTER XVI. FALL PROTECTION PROGRAM

6. FALL HAZARD CONTROL PROCEDURES (FALL PREVENTION)

A. CONTROL PROCEDURES

As fall hazards are identified, the procedures identified in this program may be revised to ensure potential fall hazards are addressed and controlled. The AVN-300 Safety Representative is responsible to obtain training, identify resources necessary to identify fall hazards, understand fall prevention techniques and to become familiar with personal fall arrest systems and procedures.

AVN-300 will ensure a personal fall arrest system and training is provided to all contract employees performing aircraft maintenance at AVN maintenance facilities.

B. PROCEDURAL FORMAT

The following format will be followed when developing fall protection procedures. The AVN-300 Safety Representative will be responsible for the implementation of these procedures. The procedures will clearly and specifically outline the scope, purpose, authorization, rules and techniques to be utilized to control fall hazards and the means to enforce compliance including, but not limited to, the following:

(1) A specific statement of the intended use of the procedure.

(2) A review of accident records, including OSHA 200 logs and Workers' Compensation documentation.

(3) Interviews with employees and groups of employees whose work environment include or may include fall hazards covered under this program.

(4) Physical observations of the work environment(s) that involve fall hazards or the potential of such.

(5) Observations of individuals and their job tasks and work habits that expose them to existing or potential fall hazards.

(6) The procedures contained in the AVN-300 fall protection program.

(7) Specific procedural steps for the use and operation of body harness systems and other fall protection systems.

(8) Specific procedural steps for the placement, erection, inspection, maintenance, disassembly and transfer of fall protection systems or devices and the person(s) responsible for them.

(9) The role of each employee in fall protection plans and applicable policies is to comply with the procedures specified in this program and utilize the personal fall arrest system.

*CHAPTER XVI. FALL PROTECTION PROGRAM

7. PERSONAL FALL ARREST SYSTEM

A. GENERAL

In those instances where fall hazards cannot be eliminated, all employees must utilize personal fall arrest equipment to prevent injuries that may result from a fall. Proper training on the use of personal fall arrest systems is essential and must be completed prior to use. Proper size selection of full body harness is essential to minimize the potential for personal injuries due to improper use.

B. RETRACTABLE LIFELINES

(1) A retractable lifeline is a fall arrest device used in conjunction with other components to complete a personal fall arrest system. Retractable lifelines may only be used by one individual at a time.

(2) A properly inspected and maintained retractable lifeline automatically stops a person's descent within a short distance after the onset of an accidental fall.

Retractable lifelines must be used when working in elevated areas six feet or greater above ground level when the work requires the employee to be outside the guard rails of a work stand, portable lift or beyond the limits of a personal restraint system. Employees are permitted to voluntarily use the personal fall arrest system while working on aircraft at heights lower than six feet.

A body belt is used for restraint within the confines of an approved work stand with guardrails. The body belt is not designed to prevent falls, only to restrain the individual within the confines of an approved work stand. A full body harness must be utilized in instances where the employees must go outside the guardrails.

C. INSPECTION AND MAINTENANCE

To ensure that personal fall arrest systems are in satisfactory condition for use, a program of inspection and periodic maintenance will be implemented. All personally owned full body harness must be inspected and approved by the AVN-300 safety representative prior to use. The following is the basic requirements of the inspection and maintenance program:

(1) Equipment manufacturer's instructions will be incorporated into the inspection and preventive maintenance procedures.

(2) An inspection of each personal fall arrest system must be documented on a 12 month interval and will be accomplished in accordance with the manufacturer's guidelines by the AVN-300 Safety Representative or designee.

(3) Each person will perform a visual inspection of the personal fall arrest system prior to initial use on a daily basis. This inspection must include a check of the last annual inspection date and the security of a rip stitch indicator.

(4) Any personal fall arrest system subjected to a fall or impact load will be removed from service immediately and turned in to the AVN-300 Safety Representative.

(5) Equipment that is damaged or in need of maintenance will be tagged as unusable, removed from service and turned in to the AVN-300 Safety Representative.

(6) Each retractable lifeline must be returned to the equipment manufacturer for recertification and inspection on a biannual basis.

*CHAPTER XVI. FALL PROTECTION PROGRAM

8. CONTRACTOR RESPONSIBILITIES

A. GENERAL

All contract employees working in elevated areas, as previously defined, must comply with the procedures and requirements specified in this fall protection program. The contractor representative must:

(1) Obtain available information regarding fall hazards and protective measures from the AVN-300 Safety Representative.

(2) Coordinate fall protection operations with the AVN-300 Safety Representative or AVN-300 Supervisory Personnel when contractor personnel will be working in or near a recognized fall hazard location.

*CHAPTER XVI. FALL PROTECTION PROGRAM

9. PARKING OF AIRCRAFT

A. GENERAL

Job functions requiring personnel to be outside safety rails installed on stands, platforms or portable support equipment at four feet or greater above ground level requires use of a personal fall arrest system. To minimize the potential for injury to personnel associated to swing hazards, each aircraft must be parked in a manner that the retractable lifelines are aligned as close to the aircraft centerline as possible when work in elevated conditions is planned. Retractable lifelines must be located by the AVN-300 Safety Representative or his designee when it is determined the lifeline position increases the potential for personal injury associated with swing hazards.

*CHAPTER XVI. FALL PROTECTION PROGRAM

10. LOCATION OF RETRACTABLE LIFELINES

A. ATTACHMENT

Retractable lifeline assemblies must be securely attached to the roof trusses in hangars 8 and 9, located at the Mike Monroney Aeronautical Center, to provide a sound structure for the fall protection system. Each retractable lifeline must be attached in the following manner:

(1) Each retractable lifeline will be attached to a tie off adapter that must be located at a truss panel (see Figure 1) point. Attachment at truss panel points is mandatory to prevent roof truss overstress through bending as a result of an inadvertent fall.

FIGURE 1. TYPICAL INSTALLATION OF A TRUSS PANEL

*CHAPTER XVI. FALL PROTECTION PROGRAM

11. DEFINITIONS

Anchorage - means a secure point of attachment for lifelines, lanyards or deceleration devices.

Body Belt - means a strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline or deceleration device.

Body Harness - means straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Connector - means a device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabiner, or it may be an integral component of part of the system.

FAA Employee - includes FAA fulltime employees and contractor employees that provide direct maintenance support under contract with FAA facilities.

Failure - means load refusal, breakage or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

Fall Arrest System - means a system specifically designed to secure, suspend or assist in retrieving a worker in or from a hazardous work area. The basic components of a fall arrest system include anchorage, anchorage connector, lanyard, shock absorber, harness and self-locking snap hook.

Free Fall - means the act of falling before a personal fall arrest system begins to apply force to arrest the fall.

Free Fall Distance - means the vertical displacement of the fall arrest attachment point on the employee's body belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall (maximum of six feet). This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

Personal Fall Arrest System - means a system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, body harness and may include a lanyard, deceleration device, lifeline or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

Retractable Lifeline - means a fall arrest device that allows free travel without slack rope, but locks instantly when a fall begins.

Self-Retracting Lifeline/Lanyard - means a deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.

Snaphook - means a connector comprised of a hook-shaped member with a normally closed keeper, or similar arrangement, which may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object. Snaphooks are generally one of two types:

- The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection; or

- The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snaphook as a part of personal fall arrest systems and positioning device systems is prohibited.

Tie Off Adapter - means an anchorage connector for a personal fall arrest, restraint, work positioning, suspension, or rescue system. It is used as part of a complete fall arrest system.

Walking/Working Surface - means any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, aircraft surfaces, elevated work stands (not including ladders), vehicles, or trailers, on which employees must be located in order to perform their job duties.

Work Area - means that portion of a walking/working surface where job duties are being performed.

*CHAPTER XVII. AIRCRAFT SPRAY PAINTING POLICY AND PROCEDURE

1. GENERAL

A. PURPOSE

This chapter covers spot painting of exterior aircraft and engine parts like wing tops, nose cones, leading edges, fuel service openings, antennas, etc. that will remain on the aircraft during painting. The affected production processes may include paint removal by sanding/grinding down to metal, corrosion treatment, one or more coatings of primer, and one or more topcoats of epoxy paint mix. This standard covers all methods used, including spray painting with compressed air atomization and aerosol cans, as well as brush and roller applications.

B. BACKGROUND

Painting and paint removal present special hazards requiring effective control. Potential hazards include exposure to toxic materials and flammable or explosive mists, particulates and vapors. Inhalation of mists and vapors from nearly all paints, solvents, thinners, cleaning chemicals, strippers and epoxies can be injurious depending upon the agent's toxic characteristics and the amount and method of exposure.

Primer, paint and thinner are volatile organic compounds (VOC's) meaning they have a tendency to react in normal atmospheric conditions. Most VOC's are lipid soluble, readily cross the blood-brain barrier and are easily absorbed through the lungs. Most are neurotoxic and, in levels in excess of occupationally acceptable limits, may cause central nervous system depression, vertigo, visual disorders and occasional tremor, fatigue, anorexia and weakness.

C. POLICY

No aircraft maintenance task or operation is more important than the safety and security of FAA personnel and facilities. This policy and procedure establishes prudent measures to assure that property and casualty risk associated with open-floor painting of aircraft is eliminated or reduced to an acceptable level. The risks of open-floor painting shall be eliminated where parts may be removed from the aircraft and painted in the paint shop. Major painting in AVN facilities shall not be allowed.

*CHAPTER XVII. AIRCRAFT SPRAY PAINTING POLICY AND PROCEDURE

2. CONTROLS

Potential physical and health hazards shall be effectively controlled by appropriate work procedures, engineering controls, job configuration and personal protective equipment.

A. Surface Preparation: All mechanical paint removal equipment shall be equipped and used with dust collection where practical. Dust collection accessories may interfere in some cases and may not be required.

B. Paint Mixing: Paint mixing must be done in the paint shop located in Hangar 9 due to the spill containment, fire protection, ignition control and ventilation features of that facility. Only essential personnel are allowed in the paint shop during paint mixing.

C. Respiratory Protection: The painter must use a National Institute for Occupational Safety and Health (NIOSH) certified respirator for protection against gases, vapors and particulates contained within the paint material.

The respirator may be an atmosphere-supplying respirator or an air-purifying respirator. Air-purifying respirators must be equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant. Where there is no ESLI, a change schedule will be determined by an AVN-300 Safety Representative based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life. In addition, the air-purifying respirators must be equipped with a filter certified by NIOSH under 30 CFR part 11 as a high efficiency particulate air (HEPA) filter.

Personnel that use respirators must be enrolled in the MMAC Medical Surveillance Program in accordance with MMAC-ESH, AMP-100-HDBK-3040-99.

*CHAPTER XVII. AIRCRAFT SPRAY PAINTING POLICY AND PROCEDURE

3. DEFINITIONS

Brush Painting - The refinishing of only localized areas, exterior or interior, involving no more than one gallon by brush or roller.

Detailing - The refinishing of only localized exterior areas involving no more than one pint per hour of material by spray.

Touch-Up Painting - The refinishing of only localized exterior areas involving no more than one quart per hour of material by spray.

Paint Job Classification - A determination of the nature of the paint job based on the amount, rate and method of paint application. Classifications include brush painting, detailing, touch-up and major painting.

Paint Job - A paint job consists of one or more paint job classifications per aircraft.

Paint Removal - The process of removing existing paints by application of mechanical sanding, grinding and buffing. May also include removal of paint with appropriate solvents and spraying or brushing away the residue.

Major Painting - Complete or virtually complete surface finishing of aircraft where application rates exceed one quart per hour. AVN hangars do not facilitate major painting.

*CHAPTER XVII. AIRCRAFT SPRAY PAINTING POLICY AND PROCEDURE

4. PROCEDURE

A. AIRCRAFT/HANGAR CONFIGURATION

(1) Touch-Up Painting

The repair bay in front of the paint shop in Oklahoma City Hangar 9 is dedicated to the facilitation of open-floor touch-up painting. The aircraft shall be parked so as to benefit from the induced draft generated by the operation of the waterfall over-spray collectors when the overhead door to the paint shop is opened.

A 60 foot x 60 foot buffer zone shall be designed with barricade tape or floor tape as demonstrated in Figure 1 of this Section. No concurrent operations are allowed within the buffer zone. Only authorized personnel (i.e., painter and designated safety monitor). The vapor zone is the area within the buffer zone where over-spray and paint vapor are at the highest levels.

NOTE: The vapor zone is determined visually and by electronic air monitors. No ignition sources are allowed within the vapor zone.

(2) Detailing

Any bay or hangar area may be used for detailing.

(3) Brush Painting

Any bay or hangar area may be used for brush painting.

B. FIRE PREVENTION AND PROTECTION FOR TOUCH-UP PAINTING OPERATIONS

(1) Control of Ignition Sources

(a) No concurrent, potentially hazardous operations shall be conducted within the 60 foot x 60 foot buffer zone. Painting during off-hours is preferred to meet this requirement.

(b) The area shall be inspected prior to the start of operations for any ignition sources within the working area and these sources shall be eliminated. Such conditions shall be maintained hazard-free during the entire work period.

(c) Temporary lighting used for general illumination during these operations shall be located so as not to be in direct range of any flammable sprays or liquids or in any "over-spray" areas. Such equipment, if not listed for use in Class I, Group D hazardous locations, shall be of the enclosed and gasketed type to minimize the danger of breakage and reduce entrance of hazardous vapors within the fixtures.

(d) The use of heat lamps to accelerate the drying of painted surfaces shall be prohibited.

(e) Aircraft electrical systems shall be de-energized during cleaning, painting and paint removal operations.

(f) To reduce the hazards associated with static electricity, aircraft shall be electrically grounded when parked in aircraft hangars. The aircraft manufacturer's description and maintenance instructions shall be consulted regarding the location of grounding points on the aircraft and the number of grounding cables required.

(g) Footwear, with metal cleats or tacks, shall not be worn, as they can cause sparks when scuffed along the floor.

(h) No open flame shall be permitted in the vicinity of the working area.

(i) All conductive work stands, ladders, paint guns and tables, etc. shall be electrically bonded to the aircraft. Cables should be attached in such a manner that they cannot be disconnected or broken if the equipment is accidentally moved. Approved static grounds, designated on the hangar floor, shall be used to provide a common ground on all bonded equipment and material.

(j) Paint guns are to be bonded and grounded via an electrical conductor running along the full length of the air hose. A common ground is accomplished by installing a jumper cable between the supply end of the air hose to an approved static ground.

(k) Painters shall be bonded to the paint gun via bare hand. Where painters prefer hand protection (i.e., gloves), an approved electrostatic discharge (ESD) device shall be used to bond the painter to the paint gun.

(2) Control of Vapor and Over-Spray

(a) Sufficient air movement to prevent flammable vapor concentrations (at floor level) and in aircraft compartments from reaching 20 percent (20%) of the lower explosive limit (LEL) during these operations shall be provided by general ventilation, by opening of hangar doors and/or by forced ventilation. Preferably, the aircraft should be parked as close to the paint shop as practical. The overhead door to the paint shop should be opened and both waterfall over-spray collectors should be operating. The fresh air inlet to the paint shop HVAC system and paint shop personnel doors should be shut off and tightly closed. Hangar doors should be closed or slightly opened.

(b) Electronic air monitors that continuously monitor the LEL and toxicity of paint vapor shall be installed and configured as indicated in Figure 1. Monitors should be calibrated and configured with the ten- percent (10%) LEL warning and a twenty percent (20%) LEL alarm and to the OSHA short-term exposure limit (STEL) of the most toxic VOC. Air monitors shall be available through the tool room.

(c) When using compressed air atomization methods, high volume low pressure (HVLP), paint guns shall be used for application of primer and paint mix. The nozzle shall be of the self-closing type so that, when the hand of the operator is removed, the nozzle will automatically close.

(d) Regardless of how small, all aircraft on which painting operations are performed shall have a minimum of one hand-portable fire extinguisher having at least a 20-B:C rating with a minimum capacity of 15 pounds of agent and one non-sparking wheeled fire extinguisher having at least an 80-B:C rating with a minimum capacity of 125 pounds of agent, located within 50 feet of the operation, available for immediate use. See Figure 1 for the preferred location of the 125-pound wheeled fire extinguisher during painting operations.

(3) Air and Water Pollution

Painting and paint removal operations can cause air and water pollution problems impacting both the Aeronautical Center and the local community. Liquid, solid and gaseous waste products from painting and paint removal operations will be disposed of according to local state air, water and solid waste pollution control laws, and as specified and approved by the Environmental, Safety & Health Division (AMP-100).

(4) Housekeeping and General Safeguards

(a) Upon completion of each cleaning, paint removal or painting operation, and at least once each day during the progress of the operation, all waste solvents, wiping waste, used masking tape, and waste paper shall be collected and safely disposed of. Under no circumstances shall flammable liquids or painting materials be dumped into sanitary or storm drains. Industrial waste disposal shall be made. Until properly disposed of, waste shall be kept in covered metal containers. Rags contaminated with finishing materials shall be kept in a separate container and not in those used to keep other waste materials.

(b) The aircraft, unless immobilized, shall be parked in the painting area so that it can be readily removed in an emergency, with no obstacles between the aircraft and the doors.

(c) Spills shall be cleaned up as they occur.

(5) Facility Inspection and Preventive Maintenance

(a) Paint facility and production related electrical equipment should be inspected routinely to ensure that it is being properly maintained in safe condition and that it will not cause short circuits.

(b) Grounding or bonding equipment (i.e., jumpers, grounding conductors, etc.) shall be regularly inspected, properly maintained and properly used. Electrical conductance tests on jumpers and grounding wire shall be performed periodically.

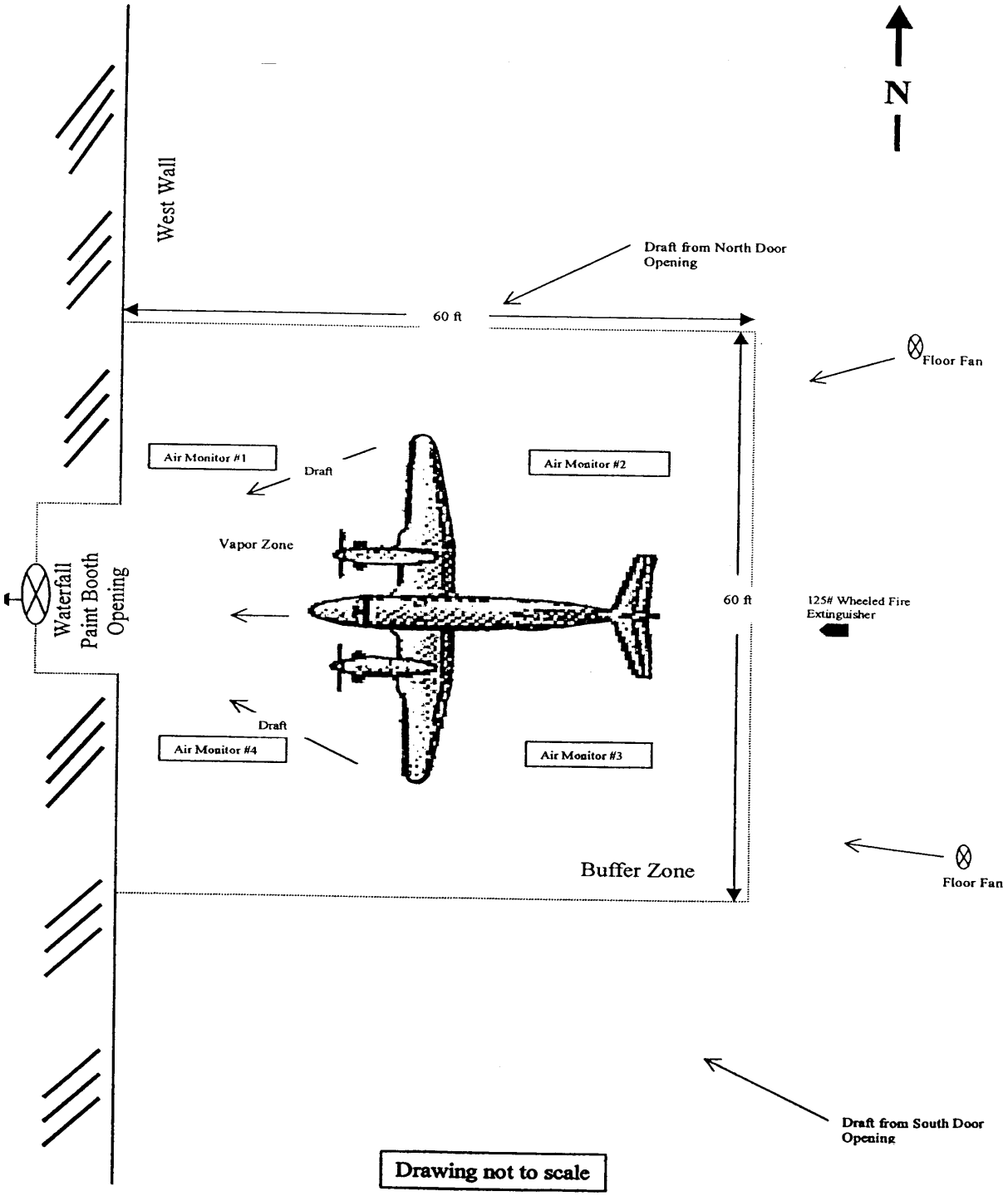
(c) Pumps, faucets and pressure relief vents of containers used for flammable liquids or solvents shall be kept leak-free and functioning.

(d) Any damage to containers, structure, seals or flame arrestors shall be promptly and properly repaired.

(e) Cleaning solution spray equipment, paint removal equipment, paint spray equipment and other applicators shall be maintained in a safe condition.

(f) Floors, roof trusses, light fixtures and overhead equipment shall be regularly inspected for paint over-spray and dust accumulation and cleaned when necessary.

FIGURE 1. AIRCRAFT SPRAY PAINTING NORMAL CONFIGURATION - HANGAR 9



*CHAPTER XVII. AIRCRAFT SPRAY PAINTING POLICY AND PROCEDURE

5. RESPONSIBILITIES

A. AVN-330 MANAGEMENT

(1) Notify AVN-300 Safety Representatives prior to all paint jobs.

(2) Designate a qualified Paint Safety Monitor for each job.

(3) Classify each paint job. Where a combination of classifications occur, use the highest hazard level.

(4) Provide accommodations for proper aircraft/hangar configuration.

(5) Coordinate the procurement and availability of all required painting material and equipment.

(6) Establish and maintain an inspection and preventative maintenance program for affected equipment.

(7) Specify aircraft paint requirements.

(8) Determine the feasibility of removing aircraft parts from the airframe and finishing in the Paint Shop.

(9) Support and enforce this safety policy and procedure.

B. AVN-300 SAFETY REPRESENTATIVES

(1) Train Paint Safety Monitors (See Section 9 of this Chapter).

(2) Maintain a list of all qualified Paint Safety Monitors.

(3) Assure that air monitors are calibrated and work properly.

(4) Assign Job Numbers and provide all safety forms, air monitors and general instructions to the designated Paint Safety Monitor.

(5) Populate and maintain the Air Monitor Log, VN Form 4100-77, see Section 6.

(6) Populate and maintain the Paint Job Data Form, VN Form 4100-78, see Section 7.

(7) Prepare a consolidated annual emission report for AMP.

C. AVN-330 AEROSPACE TECHNICIAN

(1) Identify aircraft painting requirements in accordance with the General Maintenance Manual, TI 4100.24, Aircraft Manufacturer's requirements, airworthiness directives and standard practices.

*(2) Document requirements in accordance with TI 4100.24, Chapter IV.

(3) Where practical, remove aircraft parts from the airframe and finish within the paint booth in Hangar 9.

D. DESIGNATED PAINT SAFETY MONITOR

The Designated Paint Safety Monitor is a trained and authorized government employee with authority to terminate painting operations if unsafe conditions are imminent. See the course description in Section 6.

(1) Continuously monitor the paint job and advise personnel of unsafe acts or conditions, specifically when LEL values reach ten-percent (10%) or more.

(2) Complete the Procedural Checklist, VN Form 4100-79, see Section 8, prior to starting a paint job.

(3) Submit a Job Data Form, VN Form 4100-78, to AVN-300 Safety Representatives at the completion of the job.

(4) Record peak LEL values after each paint/primer application using the Air Monitor Log, VN Form 4100-77.

(5) Submit all records to AVN Safety Representatives at the completion of the job.

*CHAPTER XVII. AIRCRAFT SPRAY PAINTING POLICY AND PROCEDURE

6. INSTRUCTIONS FOR COMPLETING THE AIR MONITOR LOG, VN FORM 4100-77

A. GENERAL

The Air Monitor Log is used to record readings displayed by electronic area monitors. Area monitoring differs from personal monitoring by sampling air in common areas as opposed to a single person's breathing air. In spray paint safety, the air is monitored for toxicity and flammability. Toxicity is based on the amount of volatile organic compounds (VOC) in the air expressed in parts per million (ppm). Flammability is based on the amount of flammable gas or vapor in the air expressed in percent of the lower explosive limit (LEL).

B. PROCEDURE

Record the peak or maximum toxicity and flammability values displayed by the air monitoring instruments upon completion of each application (primer or paint).

(1) Monitor #: Note the FAA/AVN-300 property number assigned to each instrument used. The equipment control number is normally found on the bottom of the instrument.

(2) Configuration: Note the location of the air monitors. For example, on the hangar floor, five feet in front of right engine.

(3) Peak LEL Primer: Record the peak percent LEL detected by any instrument following application of primer coat.

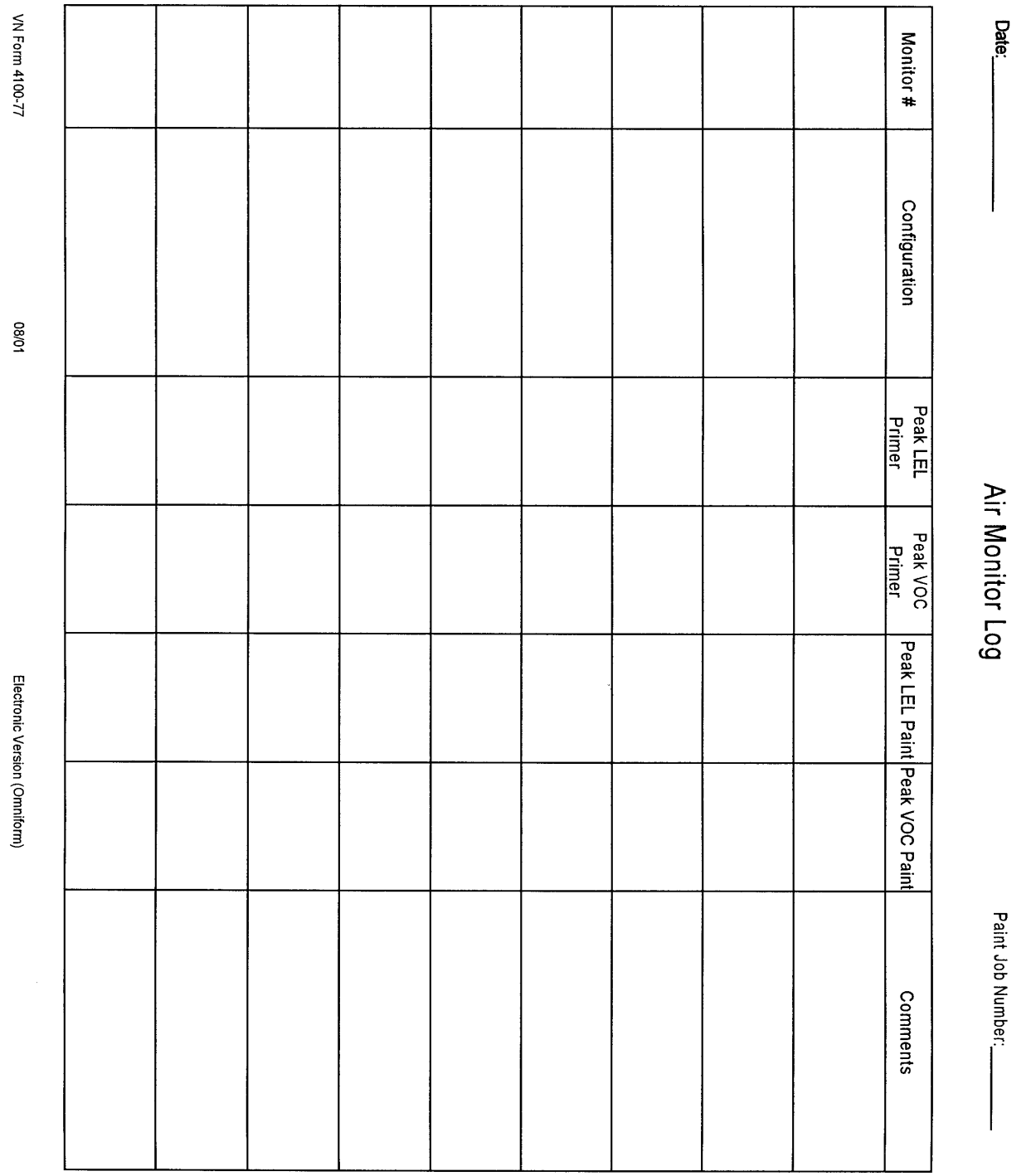
(4) Peak VOC Primer: Record the peak concentration (ppm) of VOC detected by any instrument following application of primer coat.

(5) Peak LEL Paint: Record the peak percent LEL detected by any instrument following application of paint coat.

(6) Peak VOC Paint: Record the peak concentration (ppm) of VOC detected by any instrument following application of paint coat.

(7) Comments: Add any comments that affected the operation or accuracy of the monitoring.

AIR MONITOR LOG, VN FORM 4100-77



Date:_____

Air Monitor Log

Paint Job Number:_____

Monitor #	Configuration	Peak LEL Primer	Peak VOC Primer	Peak LEL Paint	Peak VOC Paint	Comments

VN Form 4100-77 08/01 Electronic Version (Omniform)

*CHAPTER XVII. AIRCRAFT SPRAY PAINTING POLICY AND PROCEDURE

7. INSTRUCTIONS FOR COMPLETING THE PAINT JOB DATA FORM, VN FORM 4100-78

A. PROCEDURE

The procedure for completing VN Form 4100-78 is as follows:

(1) Paint Job Number: Enter a sequential job number issued by an AVN-300 Safety Representative.

(2) Date and Time: Enter the date and time the paint job is performed.

(3) Aircraft Model and N Number: Enter aircraft model and N number, for example "BAe-125-800 Hawker N-96".

(4) Scope of Work: Enter a description of the scope of work. For example, "Nose top coat application in conjunction with 'C' Check".

(5) Primer Spray Method: Enter one of the three common spray methods or describe other method used. The three common methods are:

(a) compressed air atomization - conventional
(b) compressed air atomization - high volume low pressure (HVLP)
(c) compressed air atomization - aerosol can

(6) Primer Material ID: Enter a unique name and/or product number that can be used to trace the material. Refer to the Material Safety Data Sheet (MSDS). For example: Dexter Corp. Mfg.'s code 10P4-2.

(7) Primer Catalyst Material ID: Enter a unique name and/or product number that can be used to trace the material. Refer to the MSDS. For example, Sherwin-Williams Jet Glo Catalyst Product Number CM0578520.

(8) Primer/Catalyst Mix Ratio: Enter the primer to catalyst mixture ratio. Consult the painter. Normally this ratio will be 1-1.

(9) Primer Mix Amount Applied: Enter the amount of primer mix (primer and catalyst) used for each application. This information is obtained from the painter and confirmed visually by examining the spray gun paint container. Use quart or pint units.

(10) Primer Job Duration: Enter the amount of time, in minutes, elapsed for each spray application.

(11) Primer Waste Amount: Enter the amount of primer mix, in quarts or pints, remaining after completion of priming operations.

(12) Paint Spray Method: Enter one of three common spray methods or describe other method used. See "Primer Spray Method".

(13) Paint Material ID: Enter a unique name and/or product number that can be used to trace the material. Refer to the MSDS. For example, Pratt & Lambert 570513 Jet Glo 29.

(14) Paint Catalyst Material ID: Enter a unique name and/or product number that can be used to trace the material. Refer to the MSDS. For example, Sherwin-Williams Jet Glo Catalyst Product Number CM0578520.

(15) Paint Thinner Material ID: Enter a unique name and/or product number that can be used to trace the material. Refer to the MSDS. For example, Sherwin-Williams Jet Glo - Acryglo Reducer, Medium Temperature, Product Number CM110701.

(16) Paint/Catalyst/Thinner Mix Ratio: Enter the paint to catalyst to thinner mixture ratio. Consult the painter. Normally this ratio will be 1:1.1/2.

(17) Paint Mix Amount Applied: Enter the amount of paint mix (primer, catalyst and thinner) used for each application. This information is obtained from the painter and confirmed visually by examining the spray gun paint container. Use quart or pint units.

(18) Paint Job Duration: Enter the amount of time, in minutes, elapsed for each spray application.

(19) Paint Waste Amount: Enter the amount of paint mix, in quarts or pints, remaining after completion of painting operations.

(20) Configuration: Enter the aircraft position and location.

(21) Comments: Enter comments to describe abnormal or exceptional conditions.

.

PAINT JOB DATA FORM, VN FORM 4100-78

PAINT JOB DATA FORM

Paint Job Number			
Date & Time			
Aircraft Model & N No.			
Scope of Work			
Primer Spray Method			
Primer Material ID			
Primer Catalyst Material ID			
Primer/Catalyst Mix Ratio			
Primer Mix Amount Applied	1st coat	2nd coat	3rd coat
Primer Job Duration	1st coat	2nd coat	3rd coat
Primer Waste Amount			
Paint Spray Method			
Paint Material ID			
Paint Catalyst Material ID			
Paint Thinner Material ID			
Paint/Catalyst/Thinner Mix Ratio			
Paint Mix Amount Applied	1st coat	2nd coat	3rd coat
Paint Job Duration	1st coat	2nd coat	3rd coat
Paint Waste Amount			
Configuration			
Comments			

VN Form 4100-78 08/01 Electronic Version (Omniform)

*CHAPTER XVII. AIRCRAFT SPRAY PAINTING POLICY AND PROCEDURE

8. PROCEDURAL CHECKLIST FOR AIRCRAFT TOUCH-UP PAINTING IN HANGAR 9, VN FORM 4100-79

AVN-330	**Procedural Checklist for Aircraft Touch-Up Painting in Hangar 9**	✓
	Control of Ignition Sources	
Establish a 60'x60' buffer zone. No potential ignition sources shall be allowed within the buffer zone.		
Install and operate LEL monitors continuously at floor level within the perimeter of the buffer zone (see Diagram 1).		
De-energize all building and electric utilization equipment within 20 feet of painting operations and up to a level 18 in. above the floor.		
Remove any material or equipment within a 20-foot radius, and up to a level 18 in. above the floor, that contains exposed surfaces exceeding the ignition temperature of the paint mix (100 F).		
De-energize aircraft electrical systems.		
Electrically ground aircraft.		
Electrically bond all conductive work stands, ladders, and tables, etc. to aircraft. Cables should be attached in such a manner that they cannot be disconnected or broken if the equipment is accidentally moved.		
Footwear with metal cleats or tacks shall not be permitted		
Paint gun shall be bonded and grounded to aircraft.		
Paint operations personnel shall be bonded to paint gun with bare hand.		
No open flame shall be permitted in the vicinity of the working area.		
	Ventilation	
Prevent flammable vapor concentrations at floor level from reaching 20 percent of the lower explosive limit by general ventilation, by opening of hangar doors, or by forced ventilation.		
Discontinue painting operations if vapor concentrations exceed 20% LEL within the buffer zone.		
	Fire Protection	
Provide a minimum of one hand-portable fire extinguisher having at least a 20-B:C rating with a minimum capacity of 15 lb. (6.8 kg) of agent and one non sparking wheeled fire extinguisher having at least an 80-B:C rating with a minimum capacity of 125 lb. (58 kg) of agent, located within 50 ft (15.2 m) of the operation, available for immediate use.		
	Emergency Procedures	
The aircraft, unless immobilized, shall be parked in the painting area so that it can be readily removed in an emergency, with no obstacles between the aircraft and the doors.		
	Waste Control	
Upon completion of each cleaning, paint removal, or painting operation, all waste solvents, wiping waste, used masking tape, and waste paper shall be collected and safely disposed of.		

DIAGRAM 1. VN FORM 4100-79

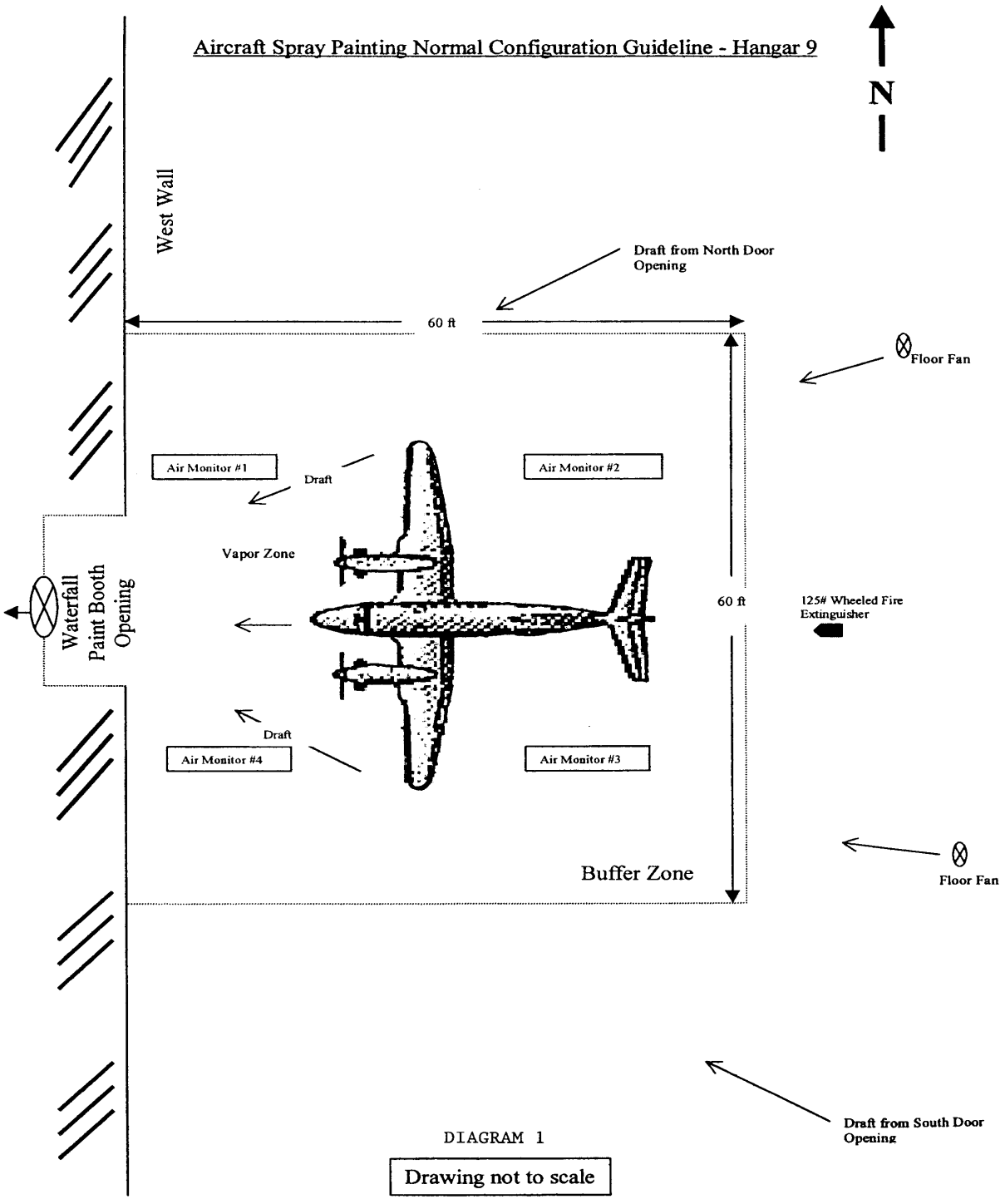


DIAGRAM 1

Drawing not to scale

VN Form 4100-79 (08/01) Electronic Version(PDF) Page 2 of 2

*CHAPTER XVII. AIRCRAFT SPRAY PAINTING POLICY AND PROCEDURE

9. TRAINING

A. DESIGNATED PAINT SAFETY MONITOR TRAINING

(1) Course Length: Two hours.

(2) Purpose: This course provides the participant with a basic understanding of the potential hazards and controls associated with open-floor spray painting and his/her responsibilities as a designated Paint Safety Monitor.

(3) Course Content:

(a) Surface preparation.

(b) Paint Mixing.

(c) Open-floor spray painting defined.

(d) Volatile organic compounds (VOC's).

(e) Aircraft/hangar configuration.

(f) Respiratory protection.

(g) Control of ignition sources.

(h) Control of paint vapor and over-spray.

(i) Air monitoring.

(j) Fire protection.

(k) Pre-job safety inspection procedures.

(l) Record keeping and paperwork.

(4) Learning Outcome:

Participants will demonstrate a basic knowledge of the following:

(a) Spray painting processes and procedures.

(b) Respiratory hazards and controls associated with VOC's.

(c) Fire hazards and controls associated with spray painting processes.

Participants will develop and demonstrate skills and abilities required to effectively operate air-monitoring equipment.

Participants will develop hazard recognition skills required for implementation of inspection and monitoring protocols.

(5) Teaching Methodology:

The following methodologies are used in the course:

(a) Lecture/Questions.

(b) Audio/Visual Presentations.

(c) Equipment demonstrations and "hands-on" workshops.

(6) Evaluation:

At the conclusion of training, participants have an opportunity to evaluate the effectiveness of the training and methods used. The evaluations are reviewed to identify changes needed to improve the course and training efforts.

*CHAPTER XVIII. PORTABLE LIFTING EQUIPMENT INSPECTION PROGRAM

1. PORTABLE LIFTING EQUIPMENT INSPECTION

A. RESPONSIBILITY

The AVN-300 Oklahoma City Safety Representative is responsible for the monitoring and inspection of portable lifting equipment used in support of aircraft maintenance at the Mike Monroney Aeronautical Center. All maintenance personnel will inspect each portable lifting device prior to each use for general condition, obvious damage and currency of inspection. The AVN-300 Oklahoma City Safety Representative is to be notified of any equipment found to be unserviceable.

B. SCHEDULING

All portable lifting equipment used in aircraft maintenance will be entered into the AVN-300 Portable Lifting Equipment inspection list. The list will be monitored by the AVN-300 Oklahoma City Safety Representative on a monthly basis to schedule the inspection of lifting equipment as they come due.

C. ANNUAL INSPECTION CRITERIA

All portable lifting equipment will be inspected each calendar year for evidence of damage or deterioration using the following criteria:

(1) Cables will be inspected for fraying, broken strands, corrosion, kinks and loose fittings.

(2) Chains will be inspected for broken or damaged links, cracks and excessive pitting caused by corrosion.

(3) Beams and structural members will be inspected for deformation, cracks, elongated holes, missing hardware or obvious defects.

(4) Hydraulic components will be inspected for fluid level, cleanliness of rams, leaking seals, general condition and security of attaching points.

D. REPORTING

When inspection is completed, the AVN-300 Oklahoma City Safety Representative will complete the inspection sticker and affix to each piece of equipment and enter date inspected into Portable Lifting Equipment Inventory. Equipment that is found to be unserviceable will be immediately tagged and isolated in Hangar 9. Equipment needing repair will be identified and tagged to prevent use, and the AVN-300 Oklahoma City Safety Representative will initiate a repair work order. Equipment found beyond repair will be removed from Hangar 9 and processed for excess or destruction.

*CHAPTER XIX. AIRCRAFT MAINTENANCE CONFINED SPACE ENTRY POLICY AND PROCEDURES

1. GENERAL

A. Purpose

*The purpose of this chapter is to establish policy and procedures to ensure the safety of the Aircraft Maintenance and Engineering Division, AVN-300, employees during the performance of work in confined spaces.

B. Responsibilities

(1) AVN-300 Management

(a) Ensure that a permit-required confined space entry program is developed and implemented.

(b) Provide the following equipment at no cost to employees, maintain that equipment properly, and ensure that employees use that equipment properly:

1 Testing and monitoring equipment;
2 Ventilating equipment needed to obtain acceptable entry conditions;
3 Personal protective equipment insofar as feasible engineering and work practice controls do not adequately protect employees;
4 Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency;
5 Equipment, such as ladders, needed for safe ingress and egress by authorized entrants;
6 Rescue and emergency equipment, except to the extent that the equipment is provided by rescue services; and
7 Other equipment necessary for safe entry into and rescue from permit spaces.

(c) Designate entry supervisors.

(2) AVN-300 Safety Representatives

(a) Develop and maintain this policy and procedure.

(b) Implement workplace assessment procedures.

(c) Maintain a list of permit-required confined spaces.

(d) Ensure that task cards associated with permit-required confined space entry are notated using Request for Action Form, VN 4100-170. (Reference this Section).

(e) Ensure that entry supervisors, authorized entrants and attendants are trained in their duties and that training records are documented and retained.

(f) Ensure the adequacy, maintenance and calibration of air monitoring equipment.

(g) Develop and implement a system for the preparation, issuance, use, cancellation and retention of entry permits.

(h) Review entry operations when there is reason to believe that the measures taken under the permit space program may not protect employees and revise the program to correct existing deficiencies before subsequent entries are authorized.

NOTE: Examples of circumstances requiring review of the permit space program are: any unauthorized entry of a permit space, the detection of a permit space hazard not covered by the permit, the detection of a condition prohibited by the permit, the occurrence of an injury or near-miss during entry, a change in the use or configuration of a permit space, and employee complaints regarding effectiveness of the program.

(i) Review the permit space program, using the canceled permits retained within one (1) year after each entry, and revise the program as necessary to ensure that employees participating in entry operations are protected from permit space hazards.

NOTE: A single annual review covering all entries performed during a 12-month period is acceptable. If no entry is performed during a 12-month period, review is unnecessary.

(3) Entry Supervisors:

(a) Designate and assign authorized entrants.

(b) Designate and assign authorized attendants.

(c) Demonstrate a knowledge of the hazards that may be faced during entry, including information on the mode, signs or symptoms and consequences of the exposure.

(d) Ensure that atmospheric testing is completed and results are documented.

(e) Verify, by checking that appropriate entries have been made on the Entry Permit, VN Form 4100-84 (Reference Section 5 of this Chapter), that all tests specified by the permit have been conducted, and that all procedures and equipment specified by the permit are in place before signing the permit and allowing entry.

(f) Develop and implement procedures for summoning rescue and emergency services, for rescuing entrants from permit spaces, for providing necessary emergency services to rescued employees and for preventing unauthorized personnel from attempting a rescue.

(g) Terminate entry and cancel the entry permit when operations covered by the permit have been completed and when a condition that is not allowed under the permit arises in or near the permit space.

(h) Submit canceled entry permits to AVN-300 Safety Representatives within two days of the cancellation.

(4) Attendants:

(a) Demonstrate a knowledge of the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

(b) Maintain awareness of possible behavioral effects of hazard exposure in authorized entrants.

(c) Maintain a continuous count and identity of authorized entrants in the permit space.

(d) Remain outside the permit space during entry operations until relieved by another attendant.

(e) Communicate with authorized entrants, as necessary, to monitor status and to alert entrants of the need to evacuate the space.

(f) Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions:

1 If the attendant detects a prohibited condition;
2 If the attendant detects the behavioral effects of hazard exposure in an authorized entrant;
3 If the attendant detects a situation outside the space that could endanger the authorized entrants; or
4 If the attendant cannot effectively and safely perform all the duties required under this paragraph.

(g) Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards.

(h) Take the following actions when unauthorized persons approach or enter a permit space while entry is underway:

1 Warn the unauthorized persons that they must stay away from the permit space;
2 Advise the unauthorized persons that they must exit immediately if they have entered the permit space; and
3 Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.

(i) Perform non-entry rescues as specified by the "permitted" rescue procedure.

(j) Perform no duties that might interfere with the primary duty to monitor and protect the authorized entrants.

(k) Provide emergency rescue services as required.

(5) Authorized Entrants

(a) Demonstrate knowledge of the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

(b) Properly use equipment as required.

(c) Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space when required.

(d) Alert the attendant whenever any warning sign or symptom of exposure to a dangerous situation is recognized or when a prohibited condition is detected.

(e) Exit from the permit space as quickly as possible whenever an order to evacuate is given by the attendant or the entry supervisor, any warning sign or symptom of exposure to a dangerous situation is recognized, a prohibited condition is detected or an evacuation alarm is activated.

REQUEST FOR ACTION, VN Form 4100-170

REQUEST FOR ACTION

SUBJECT				RFA NUMBER
To: Aviation Systems Standards Program/Standards Section, AVN-328 P.O. Box 25082 Oklahoma City, OK 73125				DATE OF INITIAL MESSAGE
DOCUMENT AFFECTED	NUMBER	CHAPTER	PAGE	FIGURE-INDEX
REASON FOR REQUEST				
SUGGESTED LANGUAGE (Give wording or step by step procedure of subject being submitted) (Use plain sheet if additional space required)				
REPLY MESSAGE				
FROM: NAME: ORG: RTG SYM: PHONE:		REPLIER		REPLY DATE
		REPLIER ORGANIZATION		ROUTING SYM.

VN Form 4100-170 (03/00) Electronic Version

CHAPTER XIX. AIRCRAFT MAINTENANCE CONFINED SPACE ENTRY POLICY AND PROCEDURES

2. DEFINITIONS

A. Attendant: An individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant's duties assigned in this confined space entry program.

*B. Authorized Entrant: An employee who is authorized by the Aircraft Maintenance and Engineering Division (AVN-300) Management or the designated confined space entry supervisor to enter a permit-required confined space.

C. Entry Supervisor: The person responsible for determining if acceptable entry conditions are present at a permit-required confined space where entry is planned, for authorizing entry and overseeing entry operations and for terminating entry as required by this program. The entry supervisor may be the first line supervisor, lead mechanic, or other designated and trained individual. The duties of the entry supervisor may be passed from one individual to another, during the course of an entry operation, only if documented on the permit and signed by the new entry supervisor.

D. Hazardous atmosphere. An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue, injury or acute illness from one or more of the following causes:

(1) Flammable gas, vapor or mist in excess of ten percent (10%) of its lower flammable limit (LFL).

(2) Airborne combustible dust at a concentration that meets or exceeds its LFL.

(3) Atmospheric oxygen concentration below 19.5% or above 23.5%.

(4) Atmospheric concentration of any substance that is capable of causing death, incapacitation, impairment of ability to self-rescue, injury or acute illness due to its health effects as determined and issued by the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV's) and Biological Exposure Indices (BEI's).

(5) Any other atmospheric condition that is immediately dangerous to life or health.

E. Permit-Required Confined Space: A space that is large enough and so configured that an employee can bodily enter and perform assigned work, has limited or restricted means for entry or exit, is not designed for continuous employee occupancy and has one or more of the following characteristics:

(1) Contains or has a potential to contain a hazardous atmosphere.

(2) Contains a material that has the potential for engulfing an entrant.

(3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor, which slopes downward and tapers to a smaller cross-section.

(4) Contains any other recognized serious safety or health hazard.

CHAPTER XIX. AIRCRAFT MAINTENANCE CONFINED SPACE ENTRY POLICY AND PROCEDURES

3. WORKPLACE ASSESSMENT AND CONTROL

A. Assessment

*The Aircraft Maintenance and Engineering Division, AVN-300, workplaces are assessed annually and as required to identify and evaluate exposures to permit-required confined spaces. A list of permit-required confined spaces shall be maintained by AVN-300 Safety Representatives.

B. Control

When permit spaces are identified, exposed employees shall be informed by posting danger signs or by any other equally effective means, of the existence and location of the danger posed by the permit spaces. The entry supervisor shall implement measures necessary to prevent unauthorized entry.

NOTE: A sign reading **"DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER"** or using other similar language would satisfy the requirement for a sign.

Where available, task cards associated with permit-required confined space entry procedures will be notated.

*CHAPTER XIX. AIRCRAFT MAINTENANCE CONFINED SPACE ENTRY POLICY AND PROCEDURES

4. PERMIT-REQUIRED CONFINED SPACE ENTRY PROCEDURES

A. General

(1) Before an employee enters the space, the entry supervisor shall test the internal atmosphere with a calibrated direct-reading instrument for oxygen content, for flammable gasses and vapors, and for potential toxic air contaminants, in that order. Any employee who enters the space or that employee's authorized representative, shall be provided an opportunity to observe the pre-entry testing required by this paragraph.

Acceptable entry conditions exist when:

(a) Flammable gas, vapor or mist is less than ten percent (10%) of its lower flammable limit (LFL).

(b) Atmospheric oxygen concentration is greater than 19.5% and less than 23.5%.

(c) Atmospheric concentration of any known hazardous substance is less than the American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values (TLV's) and Biological Exposure Indices (BEI's).

(2) Continuous forced air ventilation shall be applied to maintain safe atmospheric conditions as required. The air supply for the forced air ventilation shall be from a clean source and may not increase the hazards in the space. The atmosphere within the space shall be periodically tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere. Where a hazardous atmosphere exists, an employee may not enter the space until the forced air ventilation has eliminated or reduced the hazard to acceptable levels.

(3) The entry supervisor shall verify that the space is safe for entry and that the required pre-entry measures have been taken through a written certification (the permit) that contains the date, the location of the space and the signature of the person providing the certification.

(4) The entry supervisor shall designate at least one attendant outside the permit space into which entry is authorized for the duration of entry operations.

NOTE: Attendants may be assigned to monitor more than one permit space provided the required duties can be effectively performed for each permit space. Likewise, attendants may be stationed at any location outside the permit space to be monitored as long as the required duties can be effectively performed for each permit space.

*CHAPTER XIX. AIRCRAFT MAINTENANCE CONFINED SPACE ENTRY POLICY AND PROCEDURES

5. ENTRY PERMIT

Before entry is authorized, an Entry Permit, VN Form 4100-84 (reference this section), documenting completion of the required elements of the permit-required confined space entry procedures shall be prepared.

The completed permit shall be made available at the time of entry to all authorized entrants or their authorized representatives, by posting it at the entry portal or by any other equally effective means, so that the entrants can confirm that pre-entry preparations have been completed.

The duration of the permit may not exceed the time required to complete the identified assigned task or job.

Each canceled entry permit shall be retained for at least one (1) year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation shall be noted on the pertinent permit so that appropriate revisions to the program can be made.

ENTRY PERMIT, VN FORM 4100-84

ENTRY PERMIT

PERMIT VALID FOR ONE SHIFT ONLY

DATE: _____ SITE LOCATION and DESCRIPTION _____

PURPOSE OF ENTRY _____

COMMUNICATION PROCEDURES _____

RESCUE PROCEDURES (PHONE NUMBERS AT BOTTOM) _____

_____

REQUIREMENTS COMPLETED	DATE	TIME
Lock-Out/De-energize/Tag-Out		
Line(s) Broken-Capped-Blanked		
Purge-Flush and Vent		
Ventilation		
Secure Area (Post and Flag)		
Fire Extinguishers		
Lighting (Explosive Proof)		
Protective Clothing		
Respirator(s) (Air Purifying)		

Note: Items that do not apply enter N/A in the blank.

POTENTIAL HAZARD	ACCEPTABLE CONDITIONS	INSTRUMENT READINGS	TIME	DATE
Oxygen content	Range 19.5% - 23.5% 02			
Flammable concentration	<10% LEL			
Carbon Monoxide	<35 PPM CO			
Volatile Organic Compounds	Depends on VOC			

INSTRUMENT USED _____ MODEL/ SERIAL # _____

DESIGNATED AUTHORIZED ATTENDANT _____

AUTHORIZED ENTRANT(S) _____

ENTRY SUPERVISOR (sign/date) _____

FOR EMERGENCIES - DIAL 911

J Form 4100-84 (11/01) Electronic Version

*CHAPTER XIX. AIRCRAFT MAINTENANCE CONFINED SPACE ENTRY POLICY AND PROCEDURES

6. TRAINING

A. General

(1) Training shall be provided so that all employees, whose work is regulated by this chapter, acquire the understanding, knowledge and skills necessary for the safe performance of the duties assigned under this chapter.

(2) Training shall be provided to each affected employee:

(a) Before the employee is first assigned duties under this chapter.

(b) Before there is a change in assigned duties.

(c) Whenever there is a change in permit space operations that presents a hazard for which an employee has not previously been trained.

(d) Whenever there is reason to believe either that there are deviations from the permit space entry procedures or that there are inadequacies in the employee's knowledge or use of these procedures.

(3) Training shall establish employee proficiency in the duties required by this chapter and shall introduce new or revised procedures, as necessary, for compliance with this chapter.

(4) Training shall be certified. The certification shall contain each employee's name, the signatures or initials of the trainers and the dates of training. The certification shall be available for inspection by employees and their authorized representatives.

B. Rescue and Emergency Services Training

(1) Appropriate personal protection equipment (PPE) needed to conduct permit space rescues safely and train affected employees so they are proficient in the use of that PPE, shall be provided.

(2) Training of affected employees to perform assigned rescue duties shall be provided. Each rescue employee must successfully complete the training required to establish proficiency as an authorized entrant and attendant. Affected employees shall be trained in basic first aid and cardiopulmonary resuscitation (CPR). At least one member of the rescue team or service shall hold a current certification in first aid and CPR. Designated rescue and emergency service employees shall practice making permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies, manikin or actual persons from the actual permit spaces or from representative permit spaces. Representative permit spaces shall, with respect to opening size, configuration and accessibility, simulate the types of permit spaces from which rescue is to be performed.