



UNITED STATES ARMY  
**ENVIRONMENTAL** HYGIENE  
AGENCY

ABERDEEN PROVING GROUND, MD 2 10 10-5422

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INSTALLATION INDUSTRIAL HYGIENE PROGRAM  
SELF-ASSESSMENT GUIDE

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REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
U. S. ARMY ENVIRONMENTAL HYGIENE AGENCY  
ABERDEEN PROVING GROUND, MARYLAND 21010-5422



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INSTALLATION INDUSTRIAL HYGIENE PROGRAM  
SELF-ASSESSMENT GUIDE

Chapter 1  
Industrial Hygiene Program Self--Assessment

1-1. Authority

- a. Memorandum, Office of the Assistant Secretary of the Army, 24 February 1988, subject: Occupational Health Program Audits.
- b. Memorandum, Office of The Surgeon General, DASG-PSP, 14 March 1988, subject: Occupational Health Program Audits.

1-2. Purpose

This technical guide (TG) provides industrial hygiene (IH) program managers with performance criteria for self-assessment of their Industrial Hygiene Program.

1-3. Objective

To improve management of an installation's Industrial Hygiene Program and its implementation and effectiveness by identifying strengths and targeting weaknesses found during self-assessment of operating records, facilities, operations, and practices.

1-4. Introduction

a. IH is an essential element of both the Department of the Army (DA) Occupational Safety and Occupational Health Programs. IH is that science and art devoted to the recognition, evaluation, and control of those environmental factors and stresses associated with work and work operations that may cause sickness, impaired health and well being, or cause significant discomfort and inefficiency among workers or among citizens of the community. Without an effective Industrial Hygiene Program, the goals of the DA Occupational Safety and Occupational Health programs will not be achieved.

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b. During FY 88, the Deputy for Environment, Safety, and Occupational Health, Office of the Assistant Secretary of the Army (Installations and Logistics), issued annual Occupational Health Program goals. In response, the Office of The Surgeon General developed a number of prioritized objectives and several new initiatives. One of these initiatives was development and implementation of an Occupational Health Review Program. The Industrial Hygiene Program Review (IHPR) was developed as a direct result of this initiative.

c. IHPRs assist major Army commands (MACOMs), commanders, and installation IH program managers in identifying systemic deficiencies and establishing priorities for their Industrial Hygiene Program. The data gathered by such program reviews may be used to justify resource requirements during the program planning and budgeting process. In addition, the reviews apprise MACOMs and installations of the baseline status of their Industrial Hygiene programs and enhance exercise of good program stewardship and support.

d. The documents used to conduct the IHPRs are the Industrial Hygiene Evaluation Protocol Questionnaire (appendix A) and the Industrial Hygiene Program Evaluation Summary (appendix B).

(1) The questionnaire is the assessment tool which provides both installation program managers and U. S. Army Environmental Hygiene Agency (USAEHA) project officers with criteria for determining the status of Industrial Hygiene programs.

(2) The summary provides summary sheets for recording the overall estimate of program status. It provides commanders and program managers with a "snapshot in time" of the program including areas requiring command assistance.

e. Self-assessment of the installation Industrial Hygiene Program is an important part of the program review system.

(1) Self-assessments are done because-

(a) there are no universal, simple indicators of program status.

(b) MACOMs and DA cannot assess each program every year.

(c) self-assessments "power down" responsibility to installations.

(d) they prepare installations for external assessments.

(2) The questionnaire and summary in appendixes A and B provide a detailed guide of critical program areas using self--explanatory questions. The installation program manager can add material to deal with local conditions. The self-assessment helps installations identify program strengths and weaknesses and prepares the program manager to eliminate any problems found.

(3) Quality assurance (QA) can be accomplished either by both external assessments done by the MACOM or USAEHA or internal QA by unit auditors, inspector general, or disinterested officers.

(4) Benefits provided by this self-assessment process include--

(a) Identifying standard program criteria.

(b) Inducing program managers to make critical evaluations.

(c) Triggering followup on pending corrective actions.

(d) Providing spontaneous identification of annual performance goals.

(e) Providing program continuity after personnel turnover.

(5) IMPORTANT: Do not use the self-assessment portion of the IHPR process to compare different facilities; each facility must act as its own baseline/control to gauge improvement.

(6) These self-assessments can be a useful tool for installation program managers. However, they will only be successful if the self-assessor makes an honest appraisal.

#### 1-5. Explanation of abbreviations

Abbreviations used in this guide are explained in the glossary.

Chapter 2  
Industrial Hygiene Evaluation Criteria

2-1. Standards

a. Compliant: All of the critical elements have been established and 85 percent of the other elements are being met.

b. Generally Compliant: One of the critical elements has not been established and 70 percent of the other elements are being met.

c. Noncompliant: Two or more of the critical elements have not been established or less than 70 percent of the other elements are being met.

2-2. Program elements

The program elements presented in the following table are identified in the questionnaire (appendix A).

Table 2-1  
Industrial Hygiene Program Elements

Program Element.	Critical Element
A. Written Documents	
1. Policy	Yes
2. Program	Yes
B. Staff	
1. Manpower	Yes
2. Personnel	Yes
3. Training	No
C. IH Facilities, Equipment and References	
1. Facilities	Yes
2. Equipment	Yes
3. References	Yes
D. Health Hazard Recognition	
1. Health Hazard Information Module (HHIM)	Yes
2. Design/Process Review	No
3. Worker Hazard Identification	No
E. Health Hazard Evaluation	
1. Industrial Hygiene Implementation Plan	Yes
2. Air Sampling	Yes
F. Health Hazard Control	
1. Control Methods	Yes
2. Respiratory Protection	Yes*
3. Asbestos Management	Yes*
4. Confined Space Entry	Yes*
5. Heat Stress	Yes*
6. Medical Surveillance	Yes
7. Risk Assessment Code (RAC) and the Installation Hazard Abatement Plan	Yes*
8. Hearing Conservation	Yes
9. Occupational Vision	Yes*
10. Radiation Protection	Yes*
G. Employee Education	Yes
H. Records	Yes

\* If applicable



**APPENDIX A**  
**INDUSTRIAL HYGIENE EVALUATION ,**  
**PROTOCOL QUESTIONNAIRE**

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PROGRAM ELEMENT A - WRITTEN DOCUMENTS

---

1. STANDARDS

a. Compliant: The philosophy and goals of the Industrial Hygiene Program are completely expressed in a written policy document, and a program document has been prepared, staffed and approved. The policy has been recognized, accepted, and incorporated in the overall policies of the Occupational Health Program. A formal program document containing statements of mission, objectives, goals, and procedures has been published.

b. Generally Compliant: The philosophy and goals of the Industrial Hygiene Program have been drafted and staffed.

c. Noncompliant: The philosophy and goals of the Industrial Hygiene Program have not been drafted nor staffed.

NOTE 1. The authority for the Industrial Hygiene Program is established in AR 40-5 and AR 385-10. Supplements to these ARs are necessary to establish the program at the installation level. Program objectives and responsibilities are further defined in TB MED 503.

NOTE 2. In order to develop an effective installation Industrial Hygiene Program, the industrial hygienist must work with safety, occupational health, and other personnel to clarify and define relationships.

2. REFERENCES

AR 40-5, AH 385-10, and TB MED 503.

3. QUESTIONS

Questions for the critical elements listed below are presented on the following pages:

a. Policy

b. Program

CRITICAL ELEMENT A1 -- POLICY

- 1. Who is the installation's designated occupational safety and health (OSH) official? (AR 385-10, para 2-1)

Name	Position.
------	-----------

- 2. Where are the responsibilities of the industrial hygienist with respect to the installation's OSH program delineated? (AR 40-5, par-a 5-4; TB MED 503, chap 3)

Document(s): \_\_\_\_\_

- 3. What are the responsibilities of the industrial hygienist with respect to the installation's OSH program? (AR 40-5, para 5-4; TB MED 503, chap 3)

Responsibilities: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- 4. Which documents delineate the installation personnel responsibilities for the installation OSH program? (local regulation, supplements to AR's) (AR 385-10, para 2-2)

Document(s): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- 5. Is there a formal written policy for IH?

Y e s Document (give title and date): \_\_\_\_\_

Yes-Draft: \_\_\_\_\_ Document (give title and expected publication date): \_\_\_\_\_

No: \_\_\_\_\_

CRITICAL ELEMENT A2 -- PROGRAM

1. Is there a formal written program document for IH?

Yes: \_\_\_\_\_ Document (give title and date): \_\_\_\_\_

Yes-Draft: \_\_\_\_\_ Document (give title and expected publication date): \_\_\_\_\_

No: \_\_\_\_\_

2. Does the program document contain statements of mission, program objectives, goals, and procedures for implementation of each of the elements of the Industrial Hygiene Program?

Mission:	Yes: _____	No: _____
Program objectives:	Yes : _____	No: _____
Goals :	Yss: _____	No: _____
Procedures:	Yes : _____	No: _____

3. Does the program document reflect the present activities and requirements of the installation Industrial Hygiene Program?

Yes: \_\_\_\_\_ No : \_\_\_\_\_ Not Applicable: \_\_\_\_\_

4. Is the program document reviewed on a regular basis?

Yes:

Frequency: Regularly (give period (e.g., yearly)) \_\_\_\_\_  
Irregularly: \_\_\_\_\_  
When was the last review? month \_\_\_\_\_ year \_\_\_\_\_

No: \_\_\_\_\_

5. Has the writ-ten program document been approved and signed by management?

Yes, formally: \_\_\_\_\_  
Yes, informally: \_\_\_\_\_  
Not in any definite way: \_\_\_\_\_

- 6. Which activities or directorates have responsibilities for the installation OSH program? What are their responsibilities? (AR 385-10, para 1-4)

Activity/Directorate	Responsibility
_____	_____
_____	_____
_____	_____
_____	_____

- 7. Is there an installation Safety and Occupational Health (SOH) advisory council? (AR 385-10, para 2-1)

Yes : \_\_\_\_\_  
 No: \_\_\_\_\_ (Skip questions 8 thru 14)

- 8. Is written documentation maintained of SOH advisory council meetings?

Yes : I----- No: ----\_

- 9. Describe in what form(s) documentation is maintained?

Comment(s): - - - - - \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- 10. How often does the installation SOH advisory council meet? (AR 385-10, para Z-1)

Frequency (e.g., quarterly; yearly) \_\_\_\_\_  
 When was the last meeting? Month: \_\_\_\_\_ Year : \_\_\_\_\_

- 11. What is the purpose and responsibilities of the installation SOH advisory council? (AR 385-10, para Z-1)

Purpose: - - - - - \_\_\_\_\_  
 \_\_\_\_\_

Responsibilities: \_\_\_\_\_  
 \_\_\_\_\_

12. Who are the SOH advisory council members? (AR 385-10, para Z-1)

Name	Title/Representing
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

13. Who is the medical representative for occupational health matters? (AR 385-10, para Z-1)

Name	Title
_____	_____

14. Is the industrial hygienist a member of the SOH advisory council (or a technical representative for special matters when requested)?

Yes : \_\_\_\_\_  
 No: \_\_\_\_\_  
 Technical representative only: \_\_\_\_\_

15. Is there a working relationship between safety and IH? (e.g., routine meetings, cooperation)

Yes: \_\_\_\_\_ No: \_\_\_\_\_

16. Do IH personnel have contact with Directorate of Engineering and Housing (DEH) and Directorate of Industrial Operations (DIO)?

Yes : \_\_\_\_\_ No : \_\_\_\_\_

17. Do IH personnel have contact with the civilian personnel office (CPO)?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

18. Do support agreements with tenant activities include IH support?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

19. Is this support already defined in the support agreement between the installation and the installation medical authority (IMA) for medical services?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

20. On what installation committees are IH personnel members?

Industrial hygienist/Technician

Installation Committee

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

21. How are IH reports routed?

IH Report: IH prepares --> \_\_\_\_\_ --> \_\_\_\_\_ --> \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

22. Is there a formal procedure for following up on corrective actions to ensure adequacy and timeliness for serious health hazards?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

23. Is there a working relationship between the industrial hygienist and the occupational health physician and nurses?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

24. Do the occupational health personnel and the industrial hygienist perform walk-through surveys together?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

If Yes, how often? (e.g., weekly, monthly, quarterly):

If Yes, which members participate? (e.g., nurse, physician):

\_\_\_\_\_  
\_\_\_\_\_

25. Does the installation have any Government-owned, contractor-operated (GOCO) activities?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

If Yes, identify the contractor: \_\_\_\_\_

Describe, in general, the contractor operations the IA is responsible for supporting: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

26. Do GOCO contracts contain provisions for IH support and health hazard abatement?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

27. If Yes, are these provisions adequate?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

28. Is an IH review required in the formulation of new GOCO contracts and in the renewal of existing GOCO contracts?

New contracts            Yes : \_\_\_\_\_ No: \_\_\_\_\_  
Contract renewal        Yes:    \_\_\_\_\_ No:    \_\_\_\_\_

29. Are contracts containing occupational health/IH provisions reviewed by the IH prior to award'?

	Yes	No	
Statements of work:	_____	_____	
Proposal submissions:	_____	_____	
Other:	_____	_____	Discuss: _____



30. Is there a need for a support agreement between the installation and the U.S. Army medical center/U.S. Army medical department activity (MEDCEN/MEDDAC) which covers IH services?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

31. If Yes, does the support agreement include all the IH services required by the installation along with a mechanism for requesting those services, and appropriate action for correction of health hazards?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

32. Does the MEDCEN/MEDDAC provide IH support to other installations in their health services region?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

33. If Yes, is the support contained in support agreements?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

34. What documents (other than policy and program documents) delineate responsibilities for the Industrial Hygiene Program?

Document(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

35. Who has administrative responsibility for the Industrial Hygiene Program? (AH 40-5, para 1-4)

Name	Position
_____	_____

36. Who has technical responsibility for the Industrial Hygiene Program? (TB MED 503, para 1-5)

Name	Position
_____	_____

37. What other subposts, installations, or activities (to include Army National Guard (ARNG), Reserve Officers' Training Corps (ROTC), and U.S. Army Reserve (USAR)) receive IH support from the Industrial Hygiene Program? Is this service covered in support agreements?

Installation/Activity support	Support Agreement	
	Yes	No
-----	-----	-----
-----	-----	---A-
-----	-----	-----
-----	-----	-----
-----	-I---	-----
-----I-	-----	-----

38. Approximately how many civilian and military employees does the Industrial Hygiene Program service?

Civilian: -----  
 Military: -----

39. How are the IH concerns brought to the attention of the installation SOH advisory council? (AR 40-5, para 5-4; TB MED 503, paras 1-5 f, h, i, k, and l)

Comment(s): -----  
 -----  
 -----

40. How many requests for IH support for IH work have been submitted within the past 12 months?

Define 12 month period: From: ----- To: -----  
 Formal letter (number): -----  
 Telephonic inquiries: -----

41. How many requests for IH service to TJSAEHA have been submitted or forwarded within the past 12 months?

Define 12 month period: From: ----- To: -----  
 Formal letter (number): -----  
 Telephonic inquiries: -----

42. How many IH services have been provided by contract?

Number of contract services provided (scheduled) by USAEHA: \_\_\_\_\_  
Number of contract services provided (scheduled) locally: \_\_\_\_\_

43. What type of service was provided? (e.g., HHIM update; baseline inventory; sample analysis; sampling survey)

Service: \_\_\_\_\_  
\_\_\_\_\_

44. What estimated percentage of personnel resources are allocated to supported activities? (e.g., DJO, DEH, MEDDAC, MEDCEN, Defense Logistics Agency (DLA))

Activity Supported	Percentage
_____	_____
_____	_____
_____	_____
_____	_____

---

PROGRAM ELEMENT B -- STAFF

---

1. STANDARDS

a. Compliant: The staff responsible for the direction and operation of the Industrial Hygiene Program is professionally qualified, adequate in number, and has sufficient time and authority to plan and execute 85 percent of the IH functions of the Occupational Health Program set forth in the written policy program.

b. Generally Compliant: The staff is at least 85 percent of authorized strength, is professionally qualified, and has sufficient time and authority to plan and execute 70 percent of the IH functions.

c. Noncompliant: The staff is not qualified, not adequate in number, nor has sufficient time and authority to execute at least 70 percent of the IH functions.

NOTE: The questions in this section are designed to determine if adequate personnel are available to fully implement the Industrial Hygiene Program and to provide background data on the personnel performing IH functions at the installation.

B. REFERENCES

AR 40-5, AR 385510, and TB MED 503.

C. QUESTIONS

Questions for the critical/noncritical elements listed below are presented on the following pages:

- a. Manpower
- b. Personnel
- c. Training

CRITICAL ELEMENT B1 - MANPOWER

1. Are there IH positions listed on the current tables of distribution and allowances (TDA)?

Yes : ---- No: ----

2. How many recognized, authorized, and filled positions are there and what are the levels of the positions (GS grade)?

Recognized: \_\_\_\_\_ Authorized: ---- Filled: \_\_\_\_\_

Industrial Hygienist(s) and Technician(s) (Give name, position (e.g., supervisory IH, IH, IH technician); grade, length of time at the present position in years).

- a. \_\_\_\_\_
b. \_\_\_\_\_
c. \_\_\_\_\_
d. \_\_\_\_\_
e. \_\_\_\_\_
f. \_\_\_\_\_
g. \_\_\_\_\_
h. \_\_\_\_\_
i. \_\_\_\_\_
j. \_\_\_\_\_ A

3. Have previous manpower studies recognized the requirements?

Yes : ---- No: ----

4. If Yes, what are the requirements?

Superv Administrative
IH IHs IH Tech Steno/Clk Typ/Clk/Temp Other
Requirements: ---- / / /

5. If Yes, what are the dates of the last manpower study?

Month: \_\_\_\_\_ Year: - - - None performed: - -

6. Have manpower requirements for fu3.1 implementation of the Industrial Hygiene Program been determined and documented?

Yes :                      No :

7. If Yes, how were the requirements determined?

State how determined: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

8. Have manpower requirement documents been prepared and submitted?

Yes :        \_\_\_\_\_      If Yes, give date:    Month \_\_\_\_\_    Year    \_\_\_\_\_  
 No:

9. Are -there any planned changes for IH manpower-?

Yes :                      If Yes, describe: \_\_\_\_\_  
 No:        \_\_\_\_\_

10. IS IH manpower/workload data maintained?

Yes :        \_\_\_\_\_      No:

11. How is the data maintained?

Document name:    --- \_\_\_\_\_

12. Is IH workload data maintained separately from other preventive medicine service programs?

Yes :        \_\_\_\_\_      No:        \_\_\_\_\_

13. What portion of the industrial hygienist's/technician's time is spent within work areas? (include travel time)

Industrial hygienist/Technician	0-25%	26-50%	51-100%
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

14. What portion of the industrial hygienist's/technician's time is spent in IH office tasks? (e.g., report preparation, design review, equipment calibration)

Industrial hygienist/Technician	0-25%	26-50%	51-100%
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
-----	-I--	-----	-----

15. What portion of the industrial hygienist's/technician's time is spent on program administration?

Industrial hygienist/Technician	0-25%	26-50%	51-100%
-----	-----	-----	m---s--
-----	-----	-----	-----
-----	-----	-----	-w---m-
-----	-II-	-----	-----
-----	-----	-----	-m-o---

CRITICAL ELEMENT B2 -- PERSONNEL

1. Has the TH position(s) changed since being established (technician to professional)?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

2. Has the industrial hygienist(s)/technician(s) received promotions?

Industrial hygienist/Technician	Yes	Date of promotion	No
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

3. Is the industrial hygienist working at the full performance level of the job?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

4. What are the qualifications of the IH personnel (education, experience, certification)?

Industrial hygienist/ Technician	Education in (e.g., AA, BS, MS)	Experience			Certifications (e.g., IHIT, CIH)
		0-1 yr	1-5 yr	5+ yr	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

5. Has the MEDDAC/MEDCFN supported the certification of the IH?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

6. Does the industrial hygienist(s)/technician(s) belong to any professional associations?

Industrial hygienist/Technician	Yes	No	Associations
			(e.g., AIHA, ACGXH, ACIH, AWS)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____



7. Is clerical support available?

Yes : ----- No: -----

8. Is clerical support adequate?

Yes : ----- No: -----

9. Is the clerical support specifically provided for IH, or ~~as~~ additional support from another organization or division?

Yes : ----- No: - -

If Yes, clerical support from (Organization/division): \_\_\_\_\_  
----- I \_\_\_\_\_

If Yes, percent of time dedicated to supporting the Industrial Hygiene Program:

Title of Clerical Personnel	0-25%	26-50%	51-100%
_____	- -	-----	-----
_____	-----	-----	-----

NONCRITICAL ELEMENT B3 -- TRAINING

1. Has training been requested and received?

Requested: \_\_\_\_\_ Yes : \_\_\_\_\_ No: \_\_\_\_\_  
Received: \_\_\_\_\_ Yes : \_\_\_\_\_ No: \_\_\_\_\_

2. What training courses have the IH personnel attended?

Industrial hygienist/Technician	Course	Date (mo/yr)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

3. If training has been rejected or not provided, why? (e-g., No funds available due to; available funds used by physician, nurse, other professionals)

Comment(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

---

PROGRAM ELEMENT C - IH FACILITIES, EQUIPMENT, AND REFERENCES

---

1. STANDARDS

a. Compliant: The facilities are of adequate quality and size, and are suitably located to perform the functions of the Industrial Hygiene Program; and equipment and references are adequate in type and quantity to effectively carry out the functions of the Industrial Hygiene Program.

b. Generally Compliant: Either the facilities, equipment, or the references are adequate to support the functions of the Industrial Hygiene Program.

c. Noncompliant: Neither the facilities, equipment, nor the references are adequate to support the functions of the Industrial Hygiene Program.

NOTE: Questions in this section address the adequacy of facilities and equipment used in supporting the Industrial Hygiene Program. Adequate facilities and equipment are essential to correctly evaluate hazards and base recommendations concerning potential occupational health hazards.

2. REFERENCES

AR 40-5 and TB MED 503.

3. QUESTIONS

Questions for the critical elements listed below are presented on the following pages:

- a. Facilities
- b. Equipment
- c. References

---

CRITICAL ELEMENT C1 - FACILITIES

---

1. Is office space adequate?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

Number of square feet provided total: \_\_\_\_\_

Number of square feet per person: \_\_\_\_\_

2. Is laboratory space adequate for storage, calibration, and repair of equipment?

Yes : \_\_\_\_\_ No : \_\_\_\_\_

Number of square feet provided: \_\_\_\_\_

3. Is government transportation provided for surveys?

Yes : \_\_\_\_\_ No: \_\_\_\_\_ Use POV: \_\_\_\_\_

CRITICAL ELEMENT C2 - EQUIPMENT

1. Is sufficient IH equipment available for the program?  
 Yes :    ----       No:    ----
  
2. Have requests for equipment been submitted and approved?  
 Yes :    - - -       No:    -----
  
3. Do IH personnel experience difficulty in obtaining necessary equipment?  
 Yes:    -----       No:    -----
  
4. Are medical care support equipment (MEDCASE) items programmed for replacement on a 5-year cycle?  
 Yes :    A---       No:    -----

5. Minimum Essential IH Equipment (Extracted from TB MED 503)

Quantity	Description	Yes	No	N/A
2 ea	Air Velocity Meter	---	---	---
1 ea	Air Velocity Meter (Pitot Tube Kit-Pilot Tube - Manometer - Gauges)	---	---	---
1 ea	Calibrator; Mass Flow/Bubble Meter	---	---	---
1 ea	WBGT Index Kit	---	---	---
1 ea	Aspirator Bulb (for smoke tube)	---	---	---
1 bx	Smoke Tubes	---	---	---
1 ea	Thermometer to 220 degree F	---	---	---
1 ea	Mercury Sniffer with Battery Charger	---	---	---
1 ea	Carbon Monoxide Monitor	---	---	---
1 ea	Certified Span Gas for Calibration of CO Monitor	---	---	---
3 ea	Portable Personnel Air Samplers with Charger for each	---	---	---
1 ea	Low-Flow, Constant-Flow Air Sampler (20 to 400 cc/min) with Charger	---	---	---
1 ea	Gas and Vapor Detector	---	---	---
1 bx	0.8µm Cellulose Ester Filter 37mm, 100/bx (support pads included)	---	---	---
1 dz	Midget Impingers, Spillproof with Protective Plastic Covering	---	---	---
1 bx	Type A Glass Fiber Filters 37mm, 500/box	---	---	---

Quantity	Description	Yes	No	N/A
2 en	Cyclone Assembly, Complete	---	---	---
1 bx	Filter Backing Pads, 100/box	---	---	---
1 pk	50 complete filter cassettes, empty for 37mm Filters with Spacer Rings	---	---	---
1 dz	Bulk Sample Containers	---	---	---
50 ea	Charcoal Tubes	---	---	---
4 bx	Carbon Monoxide Detector Tubes	---	---	---
2 bx	Nitrogen Dioxide Detector Tubes	---	---	---
1 bx	Trichloroethylene Detector Tubes	---	---	---
1 bx	Toluene Detector Tubes	---	---	---
1 bx	Xylene Detector Tubes	---	---	---
1 bx	Ozone Detector Tubes	---	---	---
1 bx	Formaldehyde Detector Tubes	---	---	---
1 bx	Ammonia Detector Tubes	---	---	---
1 bx	Methyl Chloroform Detector Tubes	---	---	---
1 ea	Infrared Analyzer	---	---	---
1 ea	Tape Measure, 6 feet	---	---	---
1 ea	Tape Measure, 50 feet	---	---	---
1 ea	Flashlight	---	---	---
1 ea	Screwdriver Set	---	---	---
2 ea	Pistol Belts	---	---	---
1 ea	60 yd roll Masking Tape	---	---	---
1 dz	Hose adapters for tubing	---	---	---
1 rl	1/4-in. ID Sampling Tubing (50 feet)	---	---	---
1 ea	Stop Watch	---	---	---

6. Supplemental Sampling Equipment (Extracted from TB MED 503)

Quantity	Description	Yes	No	N/A
1 ea	Alnor Velometer	---	---	I--
1 ea	Tachometer {Photoelectric handheld}	---	---	---
1 ea	Combustible Gas & Oxygen Indicator	---	---	---
4 ea	Air Sampling Pumps plus Chargers	---	---	---
2 ea	High Volume Samplers	---	---	---
200 ea	Filters for High Volume Samplers	---	---	---
2 ea	Large Fritted Impingers	---	---	---

7. Is there an equipment calibration program? (AR 750-25)

Yes: \_\_\_\_\_ No: \_\_\_\_\_

If Yes, how often is equipment calibrated? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

If Yes, where is equipment sent? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Comment(s): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

8. Are calibration records maintained?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

9. Are the calibration records adequate?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

10. Do IH personnel experience difficulty with operation or calibration of equipment? (Have personnel demonstrate)

Yes : \_\_\_\_\_ No : ---I--

11. Are calibration procedures traceable to the National Bureau of Standards (NBS)?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

12. Is equipment maintained appropriately?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

13. Who maintains the equipment?

Name	Title	Organization
_____	_____	_____
_____	- - I - - - - -	_____

CRITICAL ELEMENT C3 -- REFERENCES\*

1. What organizational references are available for the program (not personally owned references)?

a. Required References

	Yes	No	N/A
AR 40-5, Preventive Medicine	---	---	---
AR 50-6, Chemical Surety	---	---	---
AR 385-10, The Army Safety Program	---	---	---
DLAM 6055.1, DLA Safety and Health Manual			---
TB MED 501, Hearing Conservation, with Change 1	---	---	---
TB MED 502, Respiratory Protection Program	---	---	---
TB MED 503, The Army Industrial Hygiene Program	---	---	---
TB MED 506, Occupational Vision			---
TB MED 507, Prevention, Treatment, and Control of Heat Injury	---	---	---

\* REQUISITIONING PUBLICATIONS

When requisitioning publications, use DA Form 17 (Requisition for Publications and Blank Forms) and DA Form 17-1 (Requisition for Publications and Blank Forms (Continuation Sheet)) per AR 25-30, chapter 12. These DA forms are available through normal publication supply channels.

TYPE:

POC

DA Publications (ARs, DA Pams, TB MEDs, etc.)

Your installation stockroom and overseas centers

USAEHA TGs

Write to: Commander, USAEHA,  
ATTN: HSHH--C1-O, Aberdeen  
Proving Ground, MD 21010-5422



	Yes	No	N/A
TB MED 509, Spirometry in Occupational Health Surveillance	---	---	---
TB MED 510, Interim Guidelines for the Evaluation and Control of Occupational Exposure to Waste Anesthetic Gases	---	---	---
TB MED 513, Guidelines for the Evaluation and Control of Asbestos Exposure	---	---	---
TB MED 521, Management and Control of Diagnostic X-Ray, Therapeutic X-Ray, and Gamma-Beam Equipment	---	---	---
TB MED 575, Swimming Pools and Bathing Facilities	---	---	---
TB MED 577, Sanitary Control and Surveillance of Field Water Supplies	---	---	---
Title 29, Code of Federal Regulations, 1986 rev, Part 1910, Occupational Safety and Health Standards	---	---	---
Industrial Ventilation, A Manual of Recommended Practice. Lansing, MI: American Conference of Governmental Industrial Hygienists, Committee of Industrial Ventilation, current edition	---	---	---
Threshold Limit Values (TLVs) and Biological Exposure Indices (Current Year), American Conference of Governmental Industrial Hygienists, Cincinnati, Ohio	---	---	---
Documentation of the Threshold Limit Values, Cincinnati, OH: American Conference of Governmental Industrial Hygienists, current edition with annual supplements	---	---	---
USAEHA TG No. 141, Industrial Hygiene Sampling Instructions	---	---	---
USAEHA TG No. 144, Guidelines for Controlling Health Hazards in Painting Operations	---	---	---
USAEHA TG No. 170, Hearing Conservation	---	---	---

b. Optional References

	Yes	No	Need
AR 11-XX, The Army Respiratory Protection Program (to be published) (Use USAEHA TG 17) until AR 11-XX is published.)	---	---	---
AR 25-400-2, Modern Army Recordkeeping System (MARKS)	---	---	---
AR 40-14, Control and Recording Procedures for Exposure to Ionizing Radiation and Radioactive Materials	---	---	---
AR 40-46, Control of Health Hazards from Lasers and Other High Intensity Optical Sources			
AR 40-66, Medical Record and Quality Assurance Administration	---	---	---
AR ZOO-L, Environmental Protection and Enhance- ment	---	---	---
AR 385-11, Ionizing Radiation Protection (Licensing, Control, Transportation, Disposal, and Radiation Safety)			---
AR 385-32, Protective Clothing and Equipment	---	---	---
AR 385-40, Accident Reporting and Records, with Interim Change 101	---	---	---
AR 420-10, Management of Installation Directorates of Engineering and Housing and Personnel		---	---
AR 700-68, Storage and Handling of Compressed Gases and Gas Cylinders		---	---
AR 750-25, Army Test, Measurement, Diagnostic Equipment Calibration and Repair Support Program	---	---	---
Executive Order 12196, Occupational Safety and Health Programs for Federal Employees	---	---	---
TB MED 523, Control of Hazards to Health from Microwave and Radiofrequency Radiation and Ultrasound	---	---	---

	Yes	No	Need
TB MED 524, Control of Hazards to Health from Laser Radiation	---	---	---
TB MED 525, Ionizing Radiation Used in Medicine	---	---	---
Title 29, Code of Federal Regulations, 1986 rev, Part 1904, Recording and Reporting Occupational Injuries and Illnesses	---	--	---
Title 29, Code of Federal Regulations, 1986 rev, Section 1926.58, Asbestos, tremolite, anthophyllite, and actinolite	---	--	--
Title 29, Code of Federal Regulations, 1984 rev, Part 1960, Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters	--	---	---
Title 40, Code of Federal Regulations, 1986 rev, Part 763, Asbestos	---	---	--
HSC Supplement 1 to AR 40-5, Preventive Medicine	--	---	---
HSC Supplement 1 to AR 385-10, The Army Safety Program	-	-	-
HSC Regulation 10-1, Organization and Function Policy	--	---	--
Public Law 91-596, Occupational Safety and Health Act of 1970	---	---	---
DA Pamphlet 40-8, Special Safety and Health Standard for the Evaluation and Control of Occupational Exposure to Agent GB with change 1	---	---	---
DA Pamphlet 385-3, Protective Clothing and Equipment	---	---	---
DoD Manual 6055.5-M, Occupational Health Surveillance Manual	---	--	---
Message, HQDA, DAPE-ZA, 0623502 Jun 86, subject: Policy on Controlling Smoking	---	---	---

	Yes	No	Need
ETL 1110-3-344, Interior Mechanical Design Conditions for Army and Air Force Medical Facilities	---	---	---
ETL 1110-3-366, Exhaust Systems for Ethylene Oxide Sterilizer System	---	---	---
TM 5-810-1, Mechanical Design: Heating, Ventilating, and Air Conditioning	---	---	---
TM 5-838-2, Army Health Facility Design	---	---	---
TM 9-237, Operator's Manual for Welding Theory and Application	---	---	---
TM 43-0139, Fainting Instructions for Army Materiel	---	---	---
American National Standards Institute (ANSI) Standard Z88.2-1980, Practices for Respiratory Protection	---	---	---
ANSI Standard Z358.1-1981, Emergency Eyewash and Shower Equipment	---	---	---
TJSAEHA TG No. 028, Handling and Decontamination Guide for Elemental Mercury	---	---	---
USAEHA TG No. 143, Evaluation and Control of Occupational Exposure to Ethylene Oxide in Health Care Facilities	--		
USAEHA TG No. 153, Guidelines for Controlling Potential Health Hazards from Radiofrequency Radiation	---	---	---
USAEHA TG No. 169, Occupational Health Guidelines for the Evaluation and Control of Occupational Exposure to Nerve Agents GA, GB, GD, and VX	---	---	---
USAEHA TG No. 171, The Army Respiratory Protection-Program	---	---	---
Compressed Gas Association, Handbook of Compressed Gases, Van Nostrand Reinhold Company, New York, 1981	---	---	---

	Yes	No	Need
Documentation of Industrial Hygiene Air Sampling Procedures for USAEHA TG No. 141, Industrial Hygiene Sampling Instructions	---	---	---
ASHRAE Standard, Ventilation for Acceptable Indoor Air Quality, 62-1981, The American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., Atlanta, Georgia	---	---	---
NIOSH Publication No. 81-123, Occupational Health Guidelines for Chemical Hazards	---	---	---
NIOSH Publication No. 84-100, NIOSH Manual of Analytical Methods, current edition	---	---	---
NIOSH Publication No. 85-114, Pocket Guide to Chemical Hazards	---	---	---
NIOSH Publication No. 87-102, NIOSH Certified Equipment List as of October 1, 1986	---	---	---
Ltr, 385-84-1, HQDA, 31 December 1984, subject: Policy, Responsibilities and Procedures for Inspection and Evaluation of U. S. Army Indoor Firing Ranges	---	---	---
Ltr, HQDA, DASGPSP, 1 March 1985, subject: Laboratory Hood Performance Test Procedures	---	---	---
Ltr, HQDA, DASG-PSP-0, 14 July 1987, subject: Protective Eyewear for the Soldier	---	---	---
Handbook of Noise Measurement. Concord, MA: General Radio, current edition	---	---	---
IES Lighting Handbook. New York: Illuminating Engineering Society, latest edition	---	---	---
The Industrial Environment ~ Its Evaluation and Control. Washington, D.C.: Superintendent of Documents, Government Printing Office (GPO) 017-000-00396-4, 1973	---	---	---
Industrial Hygiene Field Operations Manual. Washington, D.C.: Superintendent of Documents, GPO	---	---	---

	Yes	No	Need
Occupational Diseases: A Guide to Their Recognition. Washington, D.C.: Superintendent of Documents, GPO 017-033-00266-5, revised edition, 1977	---	---	---
Patty's Industrial Hygiene and Toxicology. New York: Joe Wiley & Sons, Volumes I-V, current edition	--	---	---
Proctor, Nick H. and Hughes, James P., Chemical Hazards of the Workplace. Philadelphia: J.B. Lippincott Company, 1978.	---	---	---
Sax, N. Irving. Dangerous Properties of Industrial Materials. New York: Van Nostrand Reinhold Co, current edition	---	---	---
American Industrial Hygiene Association Journal. Akron, OH: American Industrial Hygiene Association	---	---	---
Applied Industrial Hygiene. Cincinnati, OH: American Conference of Governmental Industrial Hygiene	---	---	---
Basic Industrial Hygiene: A Training Manual. Akron, OH: American Industrial Hygiene Association, 1980	---	---	---
Hunter, Donald. The Diseases of Occupation. Boston, MA: Little, Brown, 1975	--	---	---
Fundamentals of Industrial Hygiene. Chicago, IL: National Safety Council, current edition	---	---	---
Engineering Field Reference Manual. Akron, OH: American Industrial Hygiene Association			---
Comment(s): _____			
_____			
_____			
_____			

2. Are these references adequate for evaluating hazardous operations found at the installation?

Yes : ----- 'No : ----,--

---

PROGRAM ELEMENT D - HEALTH HAZARD RECOGNITION

---

1. STANDARDS

a. Compliant: Identification (recognition) of at least 85 percent of existing and potential health hazards has been completed and entered into the HHIM. Supervisory personnel are aware of the hazards.

b. Generally Compliant: Seventy percent or more of existing and potential health hazards have been identified and entered into the HHIM.

c. Noncompliant: Less than 70 percent of existing and potential health hazards have been identified and entered into the HHIM.

NOTE: This key element establishes and maintains the Occupational Health Program inventory of occupational health hazards. The inventory process is used to recognize occupational health hazards prior to their evaluation and control. For the Design/Process Review, IH personnel will review the physical plant process or operational modifications, as well as new concept, design, or construction projects to ensure occupational health aspects are appropriately addressed.

2. REFERENCES

AR 40-5; AR 385-10; AR 420-10; and TB MED 503, paras 3-2b -and g.

3. QUESTIONS

Questions for the critical/noncritical elements listed below are presented on the following pages:

- a. Health Hazard Information Module (HHIM)
- b. Design/Process Review
- c. Worker Hazard Identification

CRITICAL ELEMENT D1 - HEALTH HAZARD INFORMATION MODULE (HHIM)

NOTE: To evaluate questions 1 through 5, use a table of random numbers to select an unbiased sample of operations and HHIM sheets for first hand evaluation. Sample size should range between 2 and 10 percent. Obtain printouts of HHIM forms from the installation personnel. It is advisable not to touch the installation's computer equipment or manipulate data files.

1. What percentage of the health hazard inventory has been completed?

0-25%	26-50%	51-75%	76--100%
-----	-----	-----	-----

2. What percentage of the identified hazards have been evaluated?

0-25%	26-50%	51-75%	76-100%
-----	-----	-----	-----

3. If the HHIM is incomplete, has the workload required to complete this task been identified and scheduled on the Industrial Hygiene Implementation Plan (IHIP)?

Yes: ----- No: -----

4. If the HHIM is incomplete, has assistance from a support agency or outside contractor been solicited?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

If Yes, give month: \_\_\_\_\_ and year: \_\_\_\_\_

5. Is the information contained in the HHIM:

Accurate? Yes : \_\_\_\_\_ No: \_\_\_\_\_

Complete? Yes : \_\_\_\_\_ No: \_\_\_\_\_

Current (i.e., < 1 year old)? Yes : \_\_\_\_\_ No : \_\_\_\_\_



6. Is the information contained in the HHIM provided to or available to other personnel working in the Occupational Health Program?

	Yes	No
Occupational health physician	-----	-----
Occupational health nurse	-----	-----
Optometrist	-----	-----
Audiologist	-----	-----
Radiation Protection Officer (RPO)	-----	-----
Safety	-----	-----
Other: -----m	-----	-----
-----	-----	-----
-----	-----	-----mm--

7. Is the HHIM used to determine and schedule medical surveillance?

Yes : ----- No: -----

8. Is the information contained in the HHIM used as a source for:

	Yes	No
Documentation of IH equipment requirements?	-----	-----
Budget and staffing resource requirements?	-----	-----
Annual IHIP development?	-----	-----

9. Is information gathered during routine sampling, monitoring and evaluation activities used to supplement and update the HHIM?

Yes : ----- No: -----

10. Who maintains the installation hazardous chemical inventory?

Individual's name	Directorate/Activity
-----	-----

11. How often is the HHIM updated? (e.g., weekly, monthly, semiannually, annually, 25 percent a quarter)

Percentage updated (e.g., 10 percent of forms or operations/month)

0-10%	-----	Weekly:	-----
11-25%	-----	Monthly:	-----
26-40%	-----	Quarterly:	-----
51-75%	-----	Semiannually:	-----
76-90%	-----	Annually:	-----
91-100%	-----	Not at all:	-----

NONCRITICAL ELEMENT D2 -- DESIGN/PROCESS REVIEW

- 1. Has a Memorandum of Understanding (MOU) been developed between the IMA and the DEH to formalize the medical/technical design/process review?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

- 2. If Yes, what are the responsibilities for the IH/OSH review?

Responsibilities: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- 3. Is the MOU adequate?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

- 4. Have IH personnel received training or have background course work sufficient to ensure adequate technical review of design projects?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

Date	Training Course Title	Location
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

NOTE: If background course work was part of degree(s) requirements, include comment on relationship between working as an IH and the course(s)/degree acquired.

Comment(s): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

5. Is there a medical representative on the Installation Planning and Review Board?

Yes: - - - - No: - - - -

Name

Title

-----

6. Are there highly technical or unusual designs that should be referred to supporting activities for review assistance?

Yes: \_\_\_\_\_ No: - - -

7. Do records show that design reviews have been accomplished?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

8. Are reviews:

Formal, written: \_\_\_\_\_ Informal: \_\_\_\_\_ Other, specify: - - - -

Comment(s): \_\_\_\_\_

-----

-----

-----

9. Are special approvals or standing operating procedures (SOPs) required for specific toxic materials? (e.g., carcinogens, carbon tetrachloride, carbon disulfide, toluene diisocyanate, beryllium)

Yes: - - - No: - - -

If Yes, example: \_\_\_\_\_

-----

-----

---

NONCRITICAL ELEMENT D3 - WORKER HAZARD IDENTIFICATION

---

NOTE: Reports of hazardous conditions by Army personnel are important in detecting hazards that cause accidents or affect health. Reporting unsafe or unhealthful conditions in the workplace is a legal right of all federal employees. Reports may be signed or unsigned and complaintant may request anonymity. Originator(s), if known, will be notified in writing within 10 working days following receipt of a hazard report of the results of any investigation. Interim responses may be supplied to the originator if the 10-day suspense cannot be met. References for this specific section are 29 CFR 1910, 29 CFR 1960, and AR 385-10, para 4-4.

1. Is there a mechanism established for workers to report hazardous conditions?

Yes : ---- No: - - -

2. Who is the installation official assigned to receive and act on these reports?

Name of official

Title

Organization

---

---

PROGRAM ELEMENT E -- HEALTH HAZARD EVALUATION

---

1. STANDARDS

a. Compliant: Eighty-five percent or more completion of the physical, chemical, and biological health hazards in the workplace have been evaluated. Personnel exposed to these hazards are monitored regularly, and the IHIP has been completed.

b. Generally Compliant: Seventy percent or more of the physical, chemical, and biological health hazards have been evaluated. Personnel exposed to these hazards are monitored regularly and the IHIP is more than 70 percent complete.

c. Noncompliant: Less than 70 percent of the physical, chemical, and biological health hazards have been evaluated. Personnel exposed to these hazards are monitored sporadically or not at all, and the IHIP is less than 70 percent complete.

NOTE: Potential occupational health hazards identified during the inventory process require evaluation to determine the degree of hazard severity. Air sampling and ventilation measurements are the most common means of evaluation. IH sampling will be collected in accordance with specified methods and analyzed by accredited laboratories. All samples will be handled to maintain a proper chain of custody.

2. REFERENCES

TB MED 503, para 3-2d

3. QUESTIONS

Questions for the critical elements listed below are presented on the following pages:

- a. Industrial Hygiene Implementation Plan (IHIP)
- b. Air Sampling

CRITICAL ELEMENT E1 -- INDUSTRIAL HYGIENE IMPLEMENTATION PLAN (IHIP)

1. Is there an IHIP document?

Yes: ----- (if Yes, continue)

No: ----- (if No, skip to critical element E2)

2. Does the IHIP realistically reflect the ongoing and anticipated workload for IH services at the installation?

Yes : ----- No: -----

3. What tenant activities, subposts, and other installations does the IHIP cover? (May be listed as appendixes to the IHIP or as separate IHIP's) (e.g., Camp Doughboy, Anywhere Idaho, Idaho ARNG).

None: -----

Tenant activities:

Organization	MACOM
-----	-----
-----	-----

Subposts:

Name	Location	MACOM
-----	-----	-----
-----	-----	-----
-----	-----	-----

Other installations:

Name	Location	MACOM
-----	-----	-----
-----	-----	-----
-----	-----	-----

4. Are all program services identified by priority?

Yes : ----- No: -----

5. If Yes, are the priorities valid?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

5. Are all tasks listed in the IHIP, even those that cannot be accomplished due to lack of manpower? (e.g., calibration; air and ventilation sampling; report preparation)

Completely (90-100X): \_\_\_\_\_  
 Partially (25-89%): \_\_\_\_\_  
 Not at all (0-2476): \_\_\_\_\_

7. When is the IHIP reevaluated or updated?

Monthly: \_\_\_\_\_  
 Quarterly: \_\_\_\_\_  
 S e m i a n n u a l l y : \_\_\_\_\_  
 Annually: \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Not at all: \_\_\_\_\_

8. What supporting activities providing IH support are listed? (e.g., MEDDAC, MEDCRN, USAEHA, or outside contractors)

None: \_\_\_\_\_  
 MEDCEN: \_\_\_\_\_  
 MEDDAC: \_\_\_\_\_  
 USAEHA: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ (Give company name) \_\_\_\_\_  
 Other: \_\_\_\_\_

9. How do the IH personnel use the IHIP?

Satisfy the DA requirement only: \_\_\_\_\_  
 Planning: \_\_\_\_\_  
 Programming: \_\_\_\_\_  
 Manpower: \_\_\_\_\_  
 Budgeting: \_\_\_\_\_  
 Other: \_\_\_\_\_

CRITICAL ELEMENT E2 - AIR SAMPLING

1. Is periodic air sampling being accomplished as scheduled in the IHIP?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

2. Are air sampling and ventilation verifications performed in accordance with USAEHA guidance?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

3. Are routine ventilation monitoring/verification and other inspections of workplaces being accomplished as scheduled in the IHIP?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

4. Have all work areas with a potential for exposure received an initial determination of exposure level?

Yes : \_\_\_\_\_ No : \_\_\_\_\_

5. In accordance with what documents are IH samples collected?

USAEHA TG 141: \_\_\_\_\_ (give date)  
NIOSH Methods: \_\_\_\_\_  
Other: \_\_\_\_\_

6. Are samples maintained in accordance with a chain-of-custody?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

7. What laboratory(ies) analyzes the IH samples?

Laboratory name	Location
_____	_____
_____	_____
_____	_____



8. Are the laboratory(ies) which analyzes samples accredited by:

	Yes	No
American Industrial Hygiene Association (AIHA):		II---
Environmental Protection Agency (EPA):	-----	-----
National Institute for Occupational Safety and -Health (NIOSH):	-----	-----
National Bureau of Standards (NBS):	--A-	-----
Other: _____	- - - - -	- - - - -

9. If Yes, what is the laboratory(ies) accreditation number(s), if applicable?

Laboratory	Number(s)
-----	-----
-----	-----
-----	-----
-----	-----
-----	-----

10. If Yes, what type of analyses is the laboratory(ies) accreditation for?

Laboratory	Substance/class (e.g., metals, asbestos, organic vapors)		
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----

---

PROGRAM ELEMENT F -- HEALTH HAZARD CONTROL

---

1. STANDARDS

a. Compliant: Eighty-five percent or more of applicable elements have been established with written, staffed, and approved documents; and the elements have been implemented.

b. Generally Compliant: Seventy percent or more of the elements have been established with written, staffed, and approved documents; and the elements have been implemented.

c. Noncompliant: Less than 70 percent of the elements have been established with written, staffed, and approved documents; and the elements have been implemented,

NOTE : A program will be developed for the effective control of health hazards. It will include measures for existing and proposed operations such as ventilation, enclosures, personal protective equipment (WE), and confined space entry.

2. REFERENCES

29 CFR 1910, AR 40-5, AR 385-10, and TB MED 503.

3. QUESTIONS

Questions for the critical elements listed below are presented on the following pages:

- a. Control Methods
- b. Respiratory Protection
- c. Asbestos Management
- d. Confined Space Entry
- e. Heat Stress
- f. Medical Surveillance
- g. Risk Assessment Code (RAC) and the Installation Hazard Abatement Plan
- h. Hearing Conservation
- i. Occupational Vision
- j. Radiation Protection

CRITICAL ELEMENT F1 - CONTROL METHODS

1. Are IH personnel notified of proposed new operations or changes in operations?

100-75%      74-50%      <50%      Never  
 -----      -----      -----I-      -----

2. Do IH personnel provide recommendations for control of potential health hazards generated by new operations or changes in operations when notified?

100-75%      74-50%      <50%      Never  
 -----      -----      -----      -----

3. Do the IH personnel conduct evaluations after operations are changed or created?

100-75%      74-50%      <50%      Never  
 -----      -----      -----      -----

4. Do IH personnel use sampling data and measurements to recommend specific control measures?

100-75%      74-50%      <50%      Never  
 -----      -----      -----      -----

5. Are ventilation systems routinely evaluated/tested by IH personnel?

Yes : -----      No: - - - -

6. If Yes, what systems are evaluated and at what frequency is the evaluation performed?

	Yes	No	Frequency (e.g., quarterly; annually; as problems occur)
Open surface tanks:	-----	-----	-----
Vapor degreasers:	-----	-----	-----
Paint spray booths:	- - - -	-----	-----
Battery shops:	-----	-----	-----
Chemical lab hoods:	-----	-----	-----
Vehicle exhaust ext:	-----	-----	-----
Welding exhaust hoods:	-----	-----	-----
Abrasive blasting equip:	-----	-----	-----
Asbestos vacuums:	- - - -	-----	-----
Woodworking eui <sup>p</sup> exh:	II----	- - - -	-----
Confined space:	-----	-----	-----
Other: - - - - -	-----	-----	-----

7. Does the DEB perform regular maintenance and inspection of ventilation systems?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

8. If Yes, is there documentation of the inspection and maintenance perform&d?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

CRITICAL ELEMENT F2 (if applicable) - RESPIRATORY PROTECTION

NOTE: IH involvement in the Respiratory Protection Program (RPP) will vary from installation to installation. It is essential that the responsibilities for the program be clearly defined in local publication. References for this specific section are 29 CFR 1910.134; AR 11-XX/USAEHA TG No. 171; TB MED 502; and TB MED 503, para 3-2h.

1. Is there a written RPP?

Yes : ---- No: ----

Document title

Date

2. Review the local RPP. Does the program follow the guidance provided in 29 CFR 1910.134, TB MED 502, and AR 11-XX/USAEHA TG No. 171?

Yes : \_\_\_\_\_ N o \_\_\_\_\_:

3. What are the responsibilities of Safety, the Fire Department, and the industrial hygienist in the RPP?

Safety: ----- s - m - - - - \_\_\_\_\_ - -

F i r e D e p a r t m e n t : \_\_\_\_\_ - -

Industrial hygienist: \_\_\_\_\_ - -

Other: \_\_\_\_\_

4. Who is the official charged to oversee the RPP?

Name

Title

Organization

\_\_\_\_\_

5. Are all RPP responsibilities clearly outlined?

Yes :        No:

If No, list element(s) missing:

-----  
-----  
-----  
-----  
-----

6. Is there one person (per installation or major subactivity responsible for the day-to-day operation of the RPP?

Yes :        No:       

Name	Title
-----	-----

7. Are warning signs posted in areas requiring respiratory protection?

Yes :        No:       

8. Are respirators properly selected?

Yes:        No:       

9. Is air-supplied respiratory protection provided where appropriate?

Yes :        No:       

10. Is the air provided in air-supplied systems evaluated to determine that it meets Grade D breathing air specifications?

Yes :        No:       

11. Do IH personnel reevaluate respiratory hazards to ensure that the respiratory protection provided is adequate?

Yes :        No:       

12. Who determines whether employees are medically qualified to wear a respirator?

Name	Title	Organization
-----	-----	-----

13. Who conducts fit testing?

Name	Title	Organization
_____	_____	_____

14. What protocol is used for the fit testing?

Document title	Date
_____	_____

15. Is there a current list of areas which require respiratory protection?

Yes : I - No: -----

16. Has the need for respirators in these areas been determined?

Yes: \_\_\_\_\_ No: \_\_\_\_\_ Partially: - - -

17. Who conducts training of respirator users?

Name	Title	Organization
_____	_____	_____

18. How are personnel identified for inclusion into the RPP?

Comment(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

19. Is there an established procedure for the issuance, maintenance, and cleaning of respiratory protection equipment, either centralized or decentralized?

Yes : - - - No: - - -

If Yes, reference procedure and any document(s) or SOP(s) containing the guidance:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

20. What organizations can use self-contained breathing apparatuses in responding to emergencies? (e.g., fire department to fires; DEH to potential transformer leaks involving polychlorinated biphenyls (PCB))

Organization	Purpose
_____	_____
_____	_____
_____	_____
_____	_____

21. Are optical inserts provided for workers who are required to wear full facepiece respirators?

Yes : ----- No: \_ \_ \_ \_ \_



CRITICAL ELEMENT F3 (if applicable) - ASBESTOS MANAGEMENT

NOTE: An Asbestos Management Program will not be applicable to all installations. The objective of the program is to identify all locations of asbestos and the types of asbestos present; to evaluate the incidental and potential occupational exposures to asbestos; and to control exposures through administrative controls, engineering controls, and/or PPE equipment. The industrial hygienist will provide considerable guidance for effective program execution. References for this specific section are 29 CFR 1910.1001, 29 CFR 1926.58, AR 200-1, and TB MED 513.

- Who has overall responsibility for the program (other than the commander)?

Name	Title	Organization
_____	_____	_____

- Has an asbestos management team been established to implement the program?

Yes : - - - No: \_\_\_\_\_

- If Yes, who are the committee members?

	Name	Title	Organization
Commander's Rep:	_____	_____	-----w-----P----
Safety Rep:	_____	_____	_____
Ind Hygienist:	_____	_____	_____
DEH Rep:	_____	_____	_____
DRMO Rep:	_____	_____	-----m m-----
Judge Advoc. Rep:	_____	_____	-----P I-----
Union(s) Rep:	_____	_____	_____
Other Rep:	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

- Has a local document been developed which delineates responsibilities for the program and states the purpose and objectives?

Yes : - - No: \_\_\_\_\_

Document title	Date
_____	_____

5. What are the IH responsibilities for the program?

Responsibilities: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. What is the status of the identification, evaluation, and control stages of the program?

Comment(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. What is the status of the installation's special operations and maintenance program regarding:

IH tasks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DEH and custodial training: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Are there procedures to ensure that IH reviews or oversees asbestos abatement activities?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

9. Who is designated at the installation to perform the duties of the competent person for asbestos abatement activities in accordance with 29 CFR 1926.58?

Name	Title	Organization
_____	_____	_____

10. Is the competent person accredited by the State or through the EPA in accordance with 40 CFR 763?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

If Yes, accreditation agency(ies):  
\_\_\_\_\_  
\_\_\_\_\_

11. Indicate the daily duties the competent person performs at the asbestos abatement project:

Duties	Yes	No
Ensure proper enclosure setup	-----	-----
Ensure enclosure integrity	--I--	- - -
Control enclosure entry/exit	-----	-----
Supervise exposure monitoring	-----	- - -
Ensure proper protective clothing is available	- - -	- - -
Ensure approved respirators are available	-----	- - -
Ensure worker training has been conducted	- - -	-----
Ensure workers are certified	-----	-----
Ensure hygiene facilities are used	-----	-----
Ensure proper work practices	-----	-----
Ensure engineering controls are functional	-----	-----
Ensure approved decon procedures	-----	-----

12. Is there an inventory of buildings which contain asbestos-containing materials? (This may be kept by DEH in the building files.)

Yes : ----- No: -----

13. Is there an inventory of industrial operations which use asbestos?

Yes: ----- No: -----

14. Is sampling used as a determining factor in deciding on removal of asbestos?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

CRITICAL ELEMENT F4 (if applicable) - CONFINED SPACE ENTRY

1. Is there a written confined space entry program for the installation?

Yes : \_\_\_\_\_ (if Yes, continue with questions 2 thru 9 below)
No: - \_\_\_\_\_ (if No, skip to critical element F5)

2. If Yes, who is the administrator for the confined space entry program?

Name Title Organization
-----

3. If Yes, does the confined space entry program include a documented entry permit system?

Yes: |----- No: -----

4. If Yes, what individual(s)/organization(s) is/are responsible for testing the environment in a potential confined space prior to workers being allowed to enter into the confined space?

Name Organization None
-----

5. Is monitoring equipment calibrated before and after use to a NBS reference?

Yes : ----- No: -----

6. Are calibration records maintained?

Yes : \_\_\_\_\_ No: -----

7. Are oxygen measurements taken?

Yes : ----- No: -----

If Yes, list equipment used:

Equipment Name Manufacturer
-----

8. Are explosive vapor/gas measurements taken?

Yes : ----- No: -----

If Yes, list equipment used:

Equipment Name	Manufacturer
-----	-----
-----	-----
-----	-----

9. Are toxic gas/vapor measurements taken?

Yes : ----- No: - -

If Yes, list equipment used:

Equipment Name	Manufacturer
-----	-----
-----	-----
-----	-----

---

CRITICAL ELEMENT F5 (if applicable) - HEAT STRESS

---

1. Is there a formal heat stress program?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

2. If Yes, is there a formal written document for heat stress?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

3. If Yes, who is the official charged with administering the heat stress program?

Name	Title	Organization
------	-------	--------------

---

4. What responsibility does the IH have in the heat stress program?

Comment(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

---

CRITICAL ELEMENT F6 - MEDICAL SURVEILLANCE

---

NOTE: Preplacement, preassignment, and periodic job-related medical surveillance will be provided to employees potentially exposed to health hazards in the work environment or who are assigned to positions requiring specific standards of physical fitness. Termination evaluations are required for employees potentially exposed to certain hazards. References for this specific section are DOD 6055.5-M, NIOSH 81-123, and AR 40-5.

1. Is IH input used in selecting medical surveillance?

Yes : - - -      No: - - -

2. Is the HHIM data base used in selecting medical surveillance?

Yes : \_\_\_\_\_      No: \_\_\_\_\_

CRITICAL ELEMENT F7 (if applicable) - RISK ASSESSMENT CODE (RAC) AND THE  
INSTALLATION HAZARD ABATEMENT PLAN

NOTE: All operations, exposures, and deficient control measures that create potential for adverse health effects are assigned a RAC. Identified health hazards with RACs are submitted for inclusion into the installation hazard abatement plan by written report to the installation safety manager. References for this specific section are AR 385-10 and TB MED 503, para 3-2e.

- 1. Are RACs used in the installation hazard abatement program?

Yes: ----- No: -----

- 2. Who is responsible for determining RACs for health related hazards?

Name Title Organization

- 3. What guidance/document(s) is used for determining RACs for identified health hazards?

Guidance/document(s): -----

- 4. Are RACs assigned to identified health hazards and included in the installation hazard abatement plan?

Yes : ----- No: -----

- 5. What is the procedure for inclusion of RACs in the installation hazard abatement plan?

Comment(s): -----  
-----  
-----  
-----

- 6. Do health-related RACs receive funding for corrective action?

Yes: ----- No: -----

- 7. What are the sources of funding?

Sources: -----  
-----  
-----



8. Are there any health-related **RACs** on the current installation hazard abatement plan?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

9. Are **RACs** used in **IH** reports to aid the installation in prioritizing hazard abatement funding in the installation hazard abatement program?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

10. Does the OSB representative include the **IH RACs** in the hazard abatement plan as provided by the **IH**, or does the OSH representative alter the **RACs**?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

Comment(s): \_\_\_\_\_  
-----  
\_\_\_\_\_

---

CRITICAL ELEMENT F8 - HEARING CONSERVATION

---

NOTE: IH input to the Hearing Conservation Program (HCP) usually involves redording noise measurements, recommending engineering controls for noise reduction, education of personnel exposed to high--noise levels, and maintaining a list of designated high-noise areas. References for this specific section are AR 40-5 and TB MED 501.

1. Review the written HCP. Does the local HCP regulation or supplement to AR 40-5 delineate the HCP responsibilities?

Yes :                      No: -----

2. Who is the official charged with administering the HCP?

Name	Title	Organization
_____	_____	_____

3. How often are noise surveys conducted?

Q u a r t e r l y :  
 Semiannually: -----  
 Annually: -----  
 Never: -----  
 As need be:

4. Are noise survey data maintained?

Yes : ----- No: -----

5. Where are the data maintained?

	Yes	NO
IH files:	-----	-----
Medical records:	-----	-----
HHIM:	-----	-----
HEARS:	-----	-----
No records <u>maintained</u> :	-----	-----
Other:	-----	-----

6. Is there a current list of noise-hazardous areas?

Yes: ----- No: -----

7. Are DD Form 2214 (Noise Survey), DD Form 2215 (Reference Audiogram), and DD Form 2216 (Hearing Conservation Data) maintained?

Yes: ----- No: -----

8. Are personnel exposed to noise-hazardous areas identified and included in the HCP?

Yes : ----- No: -----

9. Do personnel employed in noise-hazardous areas receive periodic instruction regarding the permanent nature of noise induced hearing loss, personal protective measures, and the HCP?

Yes: - - - No: -----

Comment(s), if needed: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. What is the relationship between the IH personnel and the audiologist?

Comment(s): \_\_\_\_\_  
-----  
\_\_\_\_\_

11. Are warning signs posted in noise-hazardous areas?

Yes : - - - No: - - -

CRITICAL ELEMENT F9 (if applicable) - OCCUPATIONAL VISION

NOTE: IH input to the Occupational Vision Program may be very limited. IH responsibilities will vary from installation to installation but could include ensuring that eye-hazardous areas are posted, guards are present on machinery when required, and PPE is worn. References for this specific section are AR 40-5, AR 385-10, TB MED 503, and TB MED 506.

- 1. Is there a local supplement to AR 40-5 and/or AR 385-10 pertaining to the Occupational Vision Program that is current?

Yes : ----- No: -----

- 2. Is the supplement well written, comprehensive, and assigning areas of responsibility?

Yes : ----- No: -----

Comment(s), if needed:-----

- 3. Who has responsibility for the program? (Other than the commander)

Table with 3 columns: Name, Title, Organization

- 4. Do IH personnel have input to the program?

Yes : ----- No: -----

If Yes, by what mechanism?: -----

- 5. Are eye-hazardous areas identified during annual HHIM updates?

Yes : ----- No: -----

- 6. If Yes, are these areas included in the Occupational Vision Program?

Yes: ----- No: -----

- 7. Is there a current list of all eye-hazardous areas?

Yes : ----- No: -----

8. Who is provided the list?

Name	Title	Organization
_____	- v - - - - s - - - - -	_____

9. Who maintains the list?

Name	Title	Organization
_____	_____	_____

10. Is the occupational health section provided the list on a routine basis?

Yes : \_\_\_\_\_ N o \_\_\_\_\_:

11. Are warning signs posted in eye-hazardous areas?

Yea: N \_\_\_\_\_ o \_\_\_\_\_:

---

CRITICAL ELEMENT F10 (if applicable) - RADIATION PROTECTION

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NOTE: Radiation protection is a part of classical IH, however, on many installations the commander has designated a RPO to manage the Radiation Protection Program. IH input may be very limited; however, all responsibilities should be outlined in local regulation. References for this specific section are AR 40-14, AR 40-46, AR 385-11, TB MED 521, TB MED 523, TB MED 524, TB MED 525, and USAEHA TG 153.

1. Does the installation have ionizing or nonionizing radiation sources?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

2. Is an RPO designated by the installation commander for the installation Radiation Protection Program?

Yes : ----- No: -----

3. Who is the RPO?

Name	Title	Organization
_____	_____	_____

4. Is coordination/involvement required of the industrial hygienist with the RFO?

Yes : - - - No: -----

If Yes, by what mechanism?: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

---

PROGRAM ELEMENT G - EMPLOYEE EDUCATION (Critical Element)

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1. STANDARDS

a. Compliant: There is a written and implemented program of education and orientation of new employees and the existing workforce to acquaint them with potential hazards in the work environment. This program also informs the employees of possible problems as process changes are made or new products are introduced into the work environment, and more than 85 percent of the employees have been informed.

b. Generally Compliant: There is a program of education and orientation, and more than 70 percent of the employees have been informed.

c. Noncompliant: There is no program; or there is a program, and less than 70 percent of the employees have been informed.

NOTE : Installation staff and supervisors are jointly responsible for correlating a worker orientation and education program dealing with the nature of the hazards in the workplace, preventive measures, and proper operation of process and control equipment to prevent injury and illness. Responsibilities must be formally established for appropriate staff, supervisors, employees, and employee representatives.

2. REFERENCES

29 CFR 1910.1200, AR 40-5, AR 385-10, and TB MED 503.

3. QUESTIONS

Questions for this critical element are presented on the following pages.

1. Is there a written hazard communication program?

Yes :                    No:    .-----

Document title	Date
_____	-----
_____	-----

2. Who is the official charged with administering the hazard communication program?

Name	Title	Organization
_____	_____	_____

3. What are the responsibilities for installation personnel in this program?

Comment(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. What are the responsibilities of IH personnel?

Comment(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ a -----I-----

5. In what classes do IH personnel participate?

Comment(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Is there any IH/OSH input in the new supervisor/employee orientation training program conducted by CPO?

Yes :    -----            No:    -----

Comment(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



7. Are supervisors advised of their responsibilities under hazard communication concerning applicable programs and employee education?

	Yes	No
Routinely:	-----	-----
Occasionally:		
Seldom:	- - -	- - -
Never:	-----	-----

8. Are these responsibilities delineated in new supervisors education?

Yes : ----- No: - - -

9. Are pamphlets, bulletins, and local news media used to circulate OSH information?

Yes : ----- No: \_\_\_\_\_

10. Is the DOD Hazardous Material Information System (HMIS) used in developing worker education?

Yes : ----- N o \_\_\_\_\_:

11. Are employees specifically informed about hazards of their jobs?

	Yes	No
<u>R o u t i n e l y</u> :	-----	-----
Occasionally:		
Seldom:	- - -	- - -
Never :	- - -	- - -

12. Are employees oriented to the potential health hazards and preventive measures of their work by:

	Yes	No
Supervisors:	- - -	- - -
<u>O r i e n t a t i o n s e s s i o n s</u> :		
Printed material:	- - -	- - -
<u>No orientation training:</u>		

Other (specify): - - - \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

13. What percent of the employees have been informed of potential health hazards and preventive measures?

0-25%

26-50%

51-75%

76-100%

-----

-----

-----

-----

14. Are Material Safety Data Sheets (MSDS) available in each work area?

Yes : ----- No: -----

15. Is the DOD HMIS available in the workplace?

Yes : ----- No: -----

---

PROGRAM ELEMENT **H** -- RECORDS (Critical Element)

---

1. STANDARDS

a. Compliant: Eighty-five percent or more of applicable records are being maintained, and employees are notified of their potential hazards and exposures.

b. Generally Compliant: Seventy percent or more of the applicable records are being maintained, and employees are notified of their potential hazards and exposures.

c. Noncompliant: Less than 70 percent of the applicable records are being maintained, or employees are not notified of their potential hazards and exposures.

NOTE: Records are kept of all IH activities to include training presented, health hazard inventories, evaluations of hazards, existing health hazard control measures, and recommendations for improvements. Records must be kept current, legible, and in such form as to be intelligible and useful.

2. REFERENCES

29 CFR 1910.20; AR **25-400-2**; and TB MED 503, **para 3-2f**.

3. QUESTIONS

Questions for this critical element are presented on the following pages.

1. Are IH records maintained?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

2. Are workers notified of sampling results, either verbally or in writing, in accordance with applicable standards(s)?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

3. When are workers notified of sampling results?

Results greater than or equal to the permissible exposure limit (PEL) or TLV: \_\_\_\_\_  
Results greater than or equal to the action level: \_\_\_\_\_  
Notified of results regardless of concentration: \_\_\_\_\_

4. If employees are notified of sampling results, are they also notified of corrective actions taken to reduce exposure levels?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

5. If Yes, are results provided regardless of substance, or is notification substance specific? (e.g., asbestos; lead)

                                    Yes        No  
Substance specific: \_\_\_\_\_ \_\_\_\_\_

If Yes, identify substance(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Are records of worker exposure, ventilation flow rates, noise levels, and other environmental monitoring results included in HHIM records?

Yes : \_\_\_\_\_ No: \_\_\_\_\_

**APPENDIX B**  
**INDUSTRIAL HYGIENE PROGRAM EVALUATION SUMMARY**

**IH FINDINGS AND DISCUSSION**

Element/Standard*	Compliance			Requirements
	Compliant	Generally Compliant	Non-compliant	
<p>a. Overall Industrial Hygiene Program</p> <p><b>Compliant</b> - All critical elements have been established, and 85% of other elements have been met.</p> <p><b>Generally Compliant</b> - One critical element has not been established, and 70% of other elements have been met.</p> <p><b>Noncompliant</b> - Two or more critical elements have not been established, or less than 70% of other elements have not been met.</p>				<p>AR 40-5, paras 54 and 5-20 TB MED 503, para 3-2</p>

**REMARKS**

<p>b. Written Documents (Critical)</p> <p><b>Compliant</b> - Written policy and program documents have been prepared, staffed, and approved. Policy has been recognized, accepted, and incorporated in the overall policies of the Occupational Health Program. A formal Program Document containing statements of mission, objectives, goals, and procedures has been published.</p> <p><b>Generally Compliant</b> - Philosophy and goals of the IH Program have been drafted and staffed.</p> <p><b>Noncompliant</b> - The philosophy and goals of the IH Program have not been drafted nor staffed.</p>				<p>AR 40-5, paras 5-4a(5)(a), 5-41(1), and 5-20 TB MED 503, paras 3-1 and 3-2a AR 385-10, para 2-2</p>
--	--	--	--	--

**REMARKS:**

\* Refer to **IH Evaluation Protocol** Questionnaire for details regarding the program elements: Critical Elements have standards listed; Noncritical Elements are listed by name only.

B-2

Element/Standard*	Compliance				Requirements
	Compliant	Generally Compliant	Non-compliant	NA	
<p>c. Staff:</p> <p>(1) Manpower and Personnel (Critical)</p> <p>Compliant - Staff is <b>professionally</b> qualified, adequate in number, <b>and</b> has sufficient time and authority to <b>plan</b> and execute <b>85%</b> of the IH functions of the OH program <b>set</b> forth in the written policy program,</p> <p>Generally Compliant - Staff is at least 85% of authorized strength, is <b>professionally</b> qualified, and <b>has</b> sufficient time and authority to plan and execute at least 70% of the <b>IH</b> functions.</p> <p>Noncompliant - Staff is not qualified, not adequate in number, nor has <b>sufficient</b> time <b>and</b> authority to execute at least 70% of the <b>IH</b> functions.</p> <p>(2) Training - (Noncritical)</p>					<p>AR 40-5, paras 1-4f(1), g(2), and h(1)(a) and (b)                      TB MED 303, pare 3-3a</p>

REMARKS :

<p>d. IH Facilities, Equipment, and References (Critical)</p> <p>Compliant - Facilities are of adequate quality <b>and size and are suitably</b> located to perform the functions of <b>the IH</b> program; and equipment and referencea are <b>adequate</b> in type <b>and quantity</b> to effectively carry out the functions of the <b>IH</b> program.</p> <p>Generally Compliant - Either the facilities, equipment, or <b>the</b> references are adequate to support the functions of the <b>IH</b> program.</p> <p>Noncompliant - Neither the facilities, equipment, nor the <del>ref-</del>erences <b>are</b> adequate to support the functions of the <b>IH program</b>.</p>					<p>AR 40-5, paras 1-4g(2), and h(1)(b), (c) and (d)                      TB MED 603, paras 3-3b, c, and d</p>
--	--	--	--	--	---

REMARKS:

\* Refer to IH Evaluation Protocol Questionnaire for details **regarding** the program elements: Critical Elements have **standards** listed; Noncritical Elements are listed **by name** only.

Element/Standard*	Compliance			Requirements
	Compliant	Generally Compliant	Non-compliant	
<p><b>e. Health Hazard Recognition</b></p> <p>(1) <b>HHIM</b> (Critical)</p> <p>Compliant - <b>Identification</b> (recognition) of at least <b>85%</b> of existing and potential <b>health hazards</b> has been completed and entered into the <b>HHIM</b>. Supervisory personnel are aware of the hazards.</p> <p>Generally Compliant - Seventy percent or more of existing and potential health hazards have been identified and entered into the <b>HHIM</b>.</p> <p>Noncompliant - Less than 70% of existing <b>and</b> potential health hazards have been identified <b>and</b> entered into the <b>HHIM</b>.</p> <p>(2) Design/process review (Noncritical)</p> <p>(3) Worker hazard identification (Noncritical)</p>				<p>AR 40-5, para 5-20b                      TB MED 503, paras 3-2b and g                      AR 385-10, para 4-4</p>

REMARKS:

<p><b>f. Health Hazard Evaluation (Critical)</b></p> <p>Compliant - Eighty-five percent or more completion of the physical, chemical, and biological health hazards in the work-place have been evaluated. Personnel exposed to these hazards are monitored regularly, and the <b>IHIP</b> has been completed.</p> <p>Generally compliant - Seventy percent or more of the physical, chemical, <b>and</b> biological health hazards have been evaluated. Personnel exposed to these hazards are monitored regularly, and the <b>IHIP</b> is more than 70% complete.</p> <p>Noncompliant - less than 70% of the physical, chemical, and biological health hazards have been evaluated. Personnel exposed to these hazards are monitored sporadically or not at all, <b>and</b> the <b>IHIP</b> is less than 70% complete.</p>				<p>AR 40-5, para 5-20d                      TB MED 503, para 3-2d</p>
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REMARKS:

\* Refer to **IH** Evaluation Protocol Questionnaire for details regarding the program elements: **Critical** Elements have standards listed; Noncritical Elements are listed by **name** only.

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Element/Standard*	Compliance				Requirements
	Compliant	Generally Compliant	Non-compliant	NA	
<p><b>g. Health Hazard Control (Critical)+</b></p> <p>Compliant - Eighty-five percent or more <b>of</b> applicable elements have been established with written, staffed, and approved documents; and the <b>elements have</b> been implemented.</p> <p>Generally compliant - Seventy percent or more of the elements have been established with written, <b>staffed</b>, and approved documents; and the elements have been implemented.</p> <p>Noncompliant - Less than 70% of the elements have been established with written, staffed, <b>and</b> approved documents; and the <b>elements have</b> been implemented.</p>					AR 40-5, paras 5-20e and g TB MED 503, paras 3-2e and g, 4-3c, and 4-4

REMARKS:

<p><b>h. Employee Education (Critical)</b></p> <p>Compliant - There is a written and implemented program of education and orientation of new employees and the existing workforce to acquaint them with potential hazards in the work environment. This program also informs the employees of possible problems <b>as process changes are made</b> or new products are introduced into the work environment, and <b>more than 85% of the employees have been</b> informed.</p> <p>Generally compliant - There is a program of education and orientation, and <b>more than 70%</b> of the employees have been informed.</p> <p>Noncompliant - There is no program; or there is a program, and less than 70% of the employees have <b>been</b> informed.</p>					AR 40-5, para 5-20l TB MED 603, pars 3-2l
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REMARKS:

\* Refer to IH Evaluation Protocol Questionnaire for details regarding the program elements: Critical Elements have standards listed; Noncritical Elements are listed by name only.

+ Some elements listed in the IH Evaluation Protocol Questionnaire may not be part of an installation's IH program.

Element/Standard*	Compliance				Requirements
	Compliant	Generally Compliant	Non-compliant	NA	
<p>i. Records (Critical)</p> <p>Compliant - Eighty-five percent or more of applicable records are being maintained, and employees are notified of their potential hazards and exposures.</p> <p>Generally compliant - Seventy percent or more of the applicable records are being maintained, and employees are notified of their potential hazards and exposures.</p> <p>Noncompliant - Less than 70% of the applicable records are being maintained, or employees are not notified of their potential hazards and exposures.</p>					<p>AR 40-5, para 5-20f            TD MED 503, para 3-2f</p>

REMARKS:

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\* Refer to IH Evaluation Protocol Questionnaire for details regarding the program elements: Critical Elements have standards listed; Noncritical Elements are listed by name only.

GLOSSARY

Abbreviations

ACGIH

American Conference of Governmental Industrial Hygienists

AIHA

American Industrial Hygiene Association

ANSI

American National Standards Institute

ARNG

Army National Guard

CFR

Code of Federal Regulations

CPO

Civilian Personnel Office

DA

Department of the Army

DEH

Directorate of Engineering and Housing

DIO

Directorate of Industrial Operations

DLA

Defense Logistics Agency

DoD

Department of Defense

DRMO

Defense Reutilization and Marketing Office

EPA

Environmental Protection Agency

GOCO

Government-owned, contractor operated

GPO  
Government Printing Office

HCP  
Hearing Conservation Program

HEARS  
Hearing Evaluation Automated Registry System

HHIM  
Health Hazard Information Module

HMIS  
Hazardous Material Information System

IH  
industrial hygiene

IHIP  
Industrial Hygiene Implementation Plan

IHPR  
Industrial Hygiene Program Review

MACOM  
major Army command

MEDCASE  
medical care support equipment

MEDCEN  
U. S. Army medical center

MEDDAC  
U. S. Army medical department activity

MOTJ  
memorandum of understanding

MSDS  
Material Safety Data Sheets

NBS  
National Bureau of Standards

NIOSH  
National Institute for Occupational Safety and Health

OSH  
occupational safety and health

PCB  
polychlorinated biphenyl

P E L  
permissible exposure limit

PPE  
personal protective equipment

QA  
quality assurance

RAC  
risk assessment code

ROTC  
Reserve Officers' Training Corps

RPO  
radiation protection officer

RPP  
respiratory protection program

SOH  
safety and occupational health

SOP  
standing operating procedure

TDA  
tables of distribution and allowances

TG  
technical guide

TLV  
threshold limit values

USAEHA  
U. S. Army Environmental Hygiene Agency

USAR  
U. S. Army Reserve

