

Administrative Procedure

# PRC-PRO-SH-409

# Industrial Hygiene Monitoring, Reporting and Records Management

**Revision 2, Change 0** 

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Project: CH2M HILL Plateau Remediation Company Topic: Occupational Safety & Industrial Hygiene

# **Administrative Use**



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#### CHANGE SUMMARY

AJHA: N/A<br/>Periodic Review Due Date: 01/27/18HRB Date: N/A<br/>Validation Date: N/ARev. 2, Chg. 0PR#: PRC-51717USQ Screen Number:<br/>100K: Excluded per Table B-2<br/>S&M: GCX-7<br/>CSB/ISA: CSB-13-009<br/>PFP: 033-2013<br/>SWOC: GCX-7<br/>TP: Excluded per Table B-2<br/>WESF: WESF-13-015

#### **Description of Change**

Rev. 2-0: Change TA and Functional Manager. Modifications made to process steps in section 3.2, *Surveys*; to adaquately cover the updates to overall survey processing since implementation of the Site Wide Industrial Hygiene Database. Replace references to CHPRC IHS with SWIHD and database. Deleted App D, *Sample/Blank Employee Notifcation of Personal Sampling Results*; renumbered remaining Appendixes accordingly. Deleted App E, F and G, as they do not apply in the same way since SWIHD was implemented.

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#### 1.0 INTRODUCTION

#### 1.1 Purpose

This procedure describes the requirements that Industrial Hygienists (IHs), Industrial Hygiene Technicians (IHTs), and Occupational Safety (OS) personnel must follow for planning, documenting, reporting, and managing industrial hygiene records by using the Site Wide Industrial Hygiene Database (SWIHD) (also referred to as the database).

#### 1.2 Scope

This procedure addresses the following industrial hygiene monitoring, reporting and record management requirements:

- Using standardized collection methods to obtain a complete exposure record in accordance with the Occupational Safety and Health Administration (OSHA) recordkeeping and retention requirements: 29 CFR 1910.1020, "Access to employee exposure and medical records," and substance specific standards contained in 29 CFR 1910 and 1926.
- Implementing record retention requirements in 10 CFR 851, Worker Safety and Health *Program*.
- Communicating validated industrial hygiene monitoring results to line management, employees, and occupational medicine.
- Validating accuracy of Occupational Safety and Industrial Hygiene (OS&IH) information entered on confined space identification forms and entry permits.
- Implementing mechanism for PRC-MP-MS-003, Integrated Safety Management System/Environmental Management System Description (ISMSD), elements "Identify Hazards, Environmental Impacts and Environment, Safety and Health (ES&H) Requirements" and "Perform Work within Controls."

This procedure does **not** cover the following:

• Medical monitoring results which are forwarded to the employee's manager from the Occupational Medical provider to be given to the employee.

All changes to the forms associated with this procedure must be coordinated through CH2M HILL Plateau Remediation Company (CHPRC) Occupational Safety and Health Programs to assure compliance with requirements for "managed forms" established by PRC-PRO-IRM-112, *Forms Control.* 

#### 1.3 Applicability

This Level 2 Management Control Procedure is applicable to CHPRC employees. This procedure applies to the monitoring and sampling evaluations and data identified, collected and generated by IH personnel to assess actual or potential hazards and work place exposures from personal, direct reading, area, bulk, and wipe samples, including the subsequent reporting, retention, and retrieval of data using SWIHD.

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For subcontractor work requiring industrial hygiene monitoring and sampling, the subcontractor may collect samples utilizing their own IH personnel and equipment. Additionally the subcontractor can collect the information on their own forms if they contain the same information that the approved forms contain. However, the data collected must be retained in the database. This will be accomplished by generating a Generic survey in SWIHD and attaching electronic copies of the forms used to capture the sampling event details. Oversight will be provided by a CHPRC IH working on the project.

#### 1.4 Implementation

This procedure is effective upon publication.

#### 2.0 **RESPONSIBILITIES**

#### 2.1 Industrial Hygienist

Ensure the industrial hygiene surveys are performed consistent with the planning, data collection, and reporting process described in this procedure. When applicable, provide oversight and review industrial hygiene surveys conducted by IHTs.

#### 2.2 Industrial Hygiene Technician

Perform and document industrial hygiene surveys, under the guidance of the IH, consistent with the process described in this procedure.

#### 2.3 Occupational Safety & Industrial Hygiene (OS&IH) Programs

Establish, maintain, and manage CHPRC interface with SWIHD. Maintain and manage the IH records storage, handling, and access control of the submitted active and in-process records. Provide oversight of records generated by the IH and IHT personnel.

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#### 3.0 PROCESS

Planning, documenting, reporting, and managing industrial hygiene survey records using SWIHD involves the following steps:

- Receive user access and operation briefing from OS&IH Programs. Document the briefing in 600241, *Industrial Hygiene Qualification Card Core* or IHT on-the-job training (OJT).
- Perform field work and track information.
- Input data collected into SWIHD survey data screens once the sampling event has been completed; change the status from *Open* to *Ready*.
  - If you are sending the survey to a peer reviewer, leave the survey in the Open status, select the reviewer on the Job Info screen and save. This will send the survey to the reviewer's Inbox within SWIHD.
  - Once the peer review has been completed, the reviewer changes the status from *Open* to *Ready*, which sends the survey back to the Inbox of the Project IH.
  - In the case where the surveyor is an IHT, the IHT transcribes the data into the database and changes the Status from *Open* to *Ready*. The Project IH is then responsible for completing the survey.
- Process data collected through the *Open, Ready, Review,* and *Complete* phases as the survey status progresses.

#### 3.1 Monitoring/Sampling Plans

Monitoring/sampling plans are utilized as reference instructions for data collection and as a means to record characterization or sampling strategies for the historical record. For purposes of implementing SWIHD, a monitoring/sampling plan may be a physical document, project form, or just a category description to make it easier to report the data later.

Actionee	Step	Action
IH	1.	PROVIDE OS&IH Programs the number, title, author, and effective start date of the plan or revised plan.
OS&IH Programs	2.	MAKE the title and number of the plan available in the database.

#### 3.2 Surveys

This section lists the instructions and forms for industrial hygiene records. All listed Site Forms within this procedure are for back up use if the database is unavailable or it is more convenient to use a hard copy form to collect data in the field, pending entry into the database. If the existing method or form does not meet the needs due to an unusual monitoring strategy, the project IH must coordinate with OS&IH Programs to ensure the information will be collected in an acceptable format. It is the expectation that a survey is initiated in SWIHD within two working days of the sampling event.

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The SWIHD system does not represent the record material. It is used as a means to collect and access the data. The completed survey, sent to long term retention storage, is the record material. If database fields or structure are modified to enhance collection, uniform reporting, and/or statistical analysis, it is not considered changing records. If data is modified in the database, such that it would alter the meaning of the record, then revisions to the records must be made.

All equipment and calibration standards shall be within calibration and expiration dates. The equipment must function within established parameters for pre and post use functional tests. It is the duty of the Project IH to evaluate the impact that deviations from these requirements may have on the validity of the data. This evaluation shall be documented in the comments or Out of Tolerance sections of the Survey, as appropriate.

#### 3.2.1 Air Sampling Surveys

The process for documenting air sampling surveys using SWIHD is described in this section. Section 3.2.2 describes the process for documenting air sampling surveys if the database is unavailable.

Actionee	Step	Action
IH or IHT	1.	VERIFY the instrument's calibration dates are current.
		IF there are discrepancies with dates,
		<u>THEN</u> CONTACT the industrial hygiene Equipment Services (IHES)
	2.	TRANSCRIBE field data into SWIHD.
	3.	PRINT the Chain of Custody (COC) from SWIHD.
		• DO NOT MODIFY the sample numbers on the COC.
		<ul> <li>COMPLETE the control account charge number (CACN) and code of accounts (COA).</li> </ul>
	4.	RETAIN a signed copy when the samples are relinquished to the laboratory.
OS&IH Programs	5.	POPULATE the database with the laboratory results as they are received. ATTACH Final Lab Report to the survey in the database.
IH	6.	REVIEW the laboratory results.
		PERFORM blank corrections as needed.
		<ul> <li>VERIFY the exposure measurement data in association to the occupational exposure limit (OEL) if the sampling is personal monitoring.</li> </ul>
	7.	REVIEW the notification letter, making modifications as needed.
	8.	ATTACH the personal notification letter and any additional records to the survey (i.e., sample plans, final reports).

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Actionee	Step	Action
IH	9.	DISTRIBUTE personal notification letters. Including sending a copy of the letter to OS&IH Programs via email to <u>^IH Management</u> for distribution to the Occupational Medical Provider.
	10	. COMPLETE the survey in the database.

# **NOTE:** In the absence of the Project IH, another IH or IH manager may review and complete the survey.

#### 3.2.2 Air Sampling Survey Backup Forms

The following site forms are available to record data if the database is unavailable and data or samples need to be processed immediately:

- IH Sampling Pump Functional Test Data, Site Form A-6003-862
- Industrial Hygiene Chain of Custody and Laboratory Request, Site Form A-6004-114
- Industrial Hygiene Air Sample Survey, Site Form A-6004-728
- IH Personal Sampling Data Form, Site Form A-6003-857

Since the data is received from the laboratory electronically and must eventually be matched to the SWIHD generated survey number, the sample numbering is crucial. The additional requirements of using hard copy forms are identified in this section.

Actionee	Step	Action
IH or IHT	1.	USE a temporary Survey ID number to uniquely identify the event on hard copy forms, as well as creation of the sample identification numbers.
	2.	<u>IF</u> submitting a handwritten media sample, <u>THEN</u> GENERATE a unique sample number.
	3.	<u>WHEN</u> the database is available, <u>THEN</u> GENERATE a survey in the database <u>AND</u> TRANSCRIBE information as depicted on the hard copy forms.
	4.	RECORD in the title field first the temporary Survey ID number followed by the descriptor for the sampling event in the database. This order will aid in the matching of the laboratory's electronic data file.
	5.	ATTACH electronic copies of all handwritten and back-up paperwork to the survey in the database.
OS&IH Programs	6.	APPLY the temporary survey number, temporary assigned sample number(s), to the SWIHD generated number, so the laboratory results using the temporary sample numbers can coincide to the SWIHD generated sample numbers.

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#### 3.2.3 Direct Reading Instrument Monitoring Surveys

This section describes the process for documenting direct reading instrument (DRI) monitoring surveys using SWIHD. Section 3.2.4 identifies the applicable site forms that may be used if the database is unavailable.

Actionee	Step	Action
IH or IHT	1.	VERIFY the instrument's calibration dates are current. <u>IF</u> there are discrepancies with dates, <u>THEN</u> CONTACT the IHES.
	2.	TRANSCRIBE field data into the database.

- IH 3. COMPLETE the survey in the database..
- 3.2.4 Direct Reading Instrument Monitoring Backup Forms

The following site forms are available to record data if the database is unavailable and data or samples need to be processed immediately:

• IH DRI Functional Test Data, Site Form A-6003-861

If using back-up forms, leave the survey number field blank until the data is entered into the database.

#### 3.2.5 Surface/Bulk Sampling Surveys

The process for documenting Surface/Bulk Sampling Surveys using SWIHD is described in this section. Section 3.2.6 describes the process for documenting Surface/Bulk Sampling Surveys if the database is unavailable.

Actionee	Step	Action
IH or IHT	1.	TRANSCRIBE appropriate field data into SWIHD.
	2.	PRINT the Chain of Custody (COC) from SWIHD.
		<ul> <li>DO NOT MODIFY the sample numbers on the COC.</li> </ul>
		<ul> <li>COMPLETE the control account charge number (CACN) and code of accounts (COA).</li> </ul>
	3.	RETAIN a signed copy when the samples are relinquished to the laboratory.
OS&IH Programs	4.	POPULATE the database with the laboratory results as they are received. ATTACH Final Lab Report to the survey in the database.
IH	5.	COMPLETE the survey in the database.
OS&IH Programs	6.	RETAIN records as described in Section 5.0.

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#### 3.2.6 Surface/Bulk Sampling Backup Forms

The following site forms are available to record data if the database is unavailable and data or samples need to be processed immediately:

- Industrial Hygiene Surface Sampling Field Log, Site Form A-6004-078
- Industrial Hygiene Chain of Custody and Laboratory Request, Site Form A-6004-114

Since the data is received from the laboratory electronically and must eventually be matched to the SWIHD generated survey number, the sample numbering is crucial. The additional requirements of using hard copy forms are identified in this section.

Actionee	Step	Action
IH or IHT	1.	GENERATE a unique Survey ID number. A temporary Survey ID number is used to uniquely identify the event on hard copy forms, as well as creation of the sample identification numbers.
	2.	MAKE handwritten media sample labels using the sample numbering standard and the temporary survey number examples listed in Appendix B.
	3.	<u>WHEN</u> the database is available, <u>THEN</u> GENERATE a database survey number <u>AND</u> TRANSCRIBE information as depicted on the hard copy forms.
	4.	RECORD in the title field first the temporary Survey ID number and sample number followed by the descriptor for the sampling event in the database. This order will aid in the matching of the laboratory's electronic data file.
	5.	ATTACH electronic copies of all handwritten and back-up paperwork to the survey in the database.
OS&IH Programs	6.	APPLY the temporary survey number, temporary assigned sample number(s) to the SWIHD generated number, so the laboratory results using the temporary sample numbers can coincide to the SWIHD generated sample numbers.

#### 3.2.7 Heat Stress Monitoring Surveys

Heat stress monitoring is commonly referred to as Wet Bulb Globe Thermometer (WBGT). The process for documenting Heat Stress Monitoring Surveys using SWIHD is described in this section. Section 3.2.8 identifies the process for documenting Heat Stress Monitoring Surveys if the database is unavailable.

Actionee	Step	Action
IH or IHT	1.	VERIFY the instrument's calibration dates are current.
		IF there are discrepancies with dates,

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Actionee	Step	Action
IH or IHT	2.	TRANSCRIBE whatever subset of the data is deemed representative into the database.
IH	3.	COMPLETE the survey.

#### 3.2.8 Heat Stress Monitoring Backup Forms

*WBGT Monitoring form*, Site Form A-6004-691, may be used if the database is unavailable and data or samples need to be processed immediately. The survey number field is left blank until the data is entered into the database when the site form is used.

#### 3.2.9 Noise Surveys

The process for documenting Noise Surveys using SWIHD is described in this section. Section 3.2.10 identifies the process for documenting noise if the database is unavailable.

Actionee	Step	Action
IH or IHT	1.	VERIFY the instrument's calibration dates are current. <u>IF</u> there are discrepancies with dates, <u>THEN</u> CONTACT the IHES.
	2.	TRANSCRIBE whatever subset of the data is deemed representative into the database.
	3.	REVIEW the notification letter, making modifications as needed.
IH	4.	ATTACH the personal notification letter and any additional records to the survey (i.e., sample plans, final reports).
	5.	DISTRIBUTE personal notification letters. Including sending a copy of the letter to OS&IH Programs via email to <u>AIH Management</u> for distribution to the Occupational Medical Provider.
	6.	COMPLETE the survey in the database.

#### 3.2.10 Noise Survey Backup Forms

The following site forms may be used if the database is unavailable and data or samples need to be processed immediately:

- Industrial Hygiene Noise Survey, Site Form A-6004-736
- Industrial Hygiene Noise Dosimetry Survey, Site Form A-6004-735

The survey number field is left blank until the data is entered into the database when the site form is used.

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#### 3.3 Employee Notification of Monitoring Results

After receipt of any personal sampling results for agents regulated by OSHA or U.S. Department of Energy (DOE) notification requirements, each affected employee shall be notified of these results individually in writing and may also receive notification by posting the results in an appropriate location that is accessible to affected employees. For example, the personal sampling monitoring results for Beryllium may be posted as shown in Appendix E. To maintain confidentiality, individual and discrete employee identification shall be utilized when posting personal sampling results. Notification requirements and/or timeframes are specific to the regulated chemical substance or physical agent (refer to Appendix C).

Individuals who wore sampling apparatuses are to be notified of the sampling results by written notification. The notification letters shall contain the corrective action being taken by CHPRC to reduce their exposure to or below the time-weighted average (TWA) and/or excursion limit wherever sampling results indicated that the TWA and/or excursion limit had been exceeded. A copy of the employee's personal notification letter shall be provided to the Occupational Medical Provider. All notification letters shall be attached to the survey, sent to the employee as well as transmitted to OS&IH Programs via email to <u>AIH Management</u> for distribution to the Occupational Medical Provider.

#### 3.4 Requests for Exposure Assessment Data

Whenever an employee or designated representative requests access to a record, CHPRC shall assure that the information is provided in a reasonable time, place, and manner. If CHPRC cannot reasonably provide access to the record within 15 working days, CHPRC shall (within the 15 working days) apprise the employee or designated representative requesting the record of the reason for the delay and the earliest date when the record can be made available.

CHPRC may require of the requester only such information as should be readily known to the requester and which may be necessary to locate or identify the records being requested (e.g., dates and locations where the employee worked during the time period in question).

Actionee	Step	Action
IH and IH Managers	1.	COORDINATE with the individual requesting the exposure data to gain clarification as to the timeframes and type of data being requested.
IH and OS&IH Programs	2.	<u>IF</u> the information requested is unable to be obtained within 15 working days, <u>THEN</u> NOTIFY the requestor apprising the employee the reason for the delay and the earliest date when the data can be made available.
IH	3.	CONTACT the requestor <u>AND</u> COORDINATE delivery of information.
	4.	OBTAIN the requestor signature on the request form, acknowledging receipt of the information. The deliverer of the information may sign attesting to delivery of the information to the requestor if the requestor is unable to acknowledge receipt.

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Actionee	Step	Action
OS&IH	5.	RETAIN records as defined in Section 5.0.
Programs		

#### 3.5 Hanford Confined Space Documents

Hanford Confined Space documents shall have an independent (peer) OS&IH review.

- Hanford Confined Space Hazard Identification Form, Site Form A-6005-724
- Hanford Confined Space Entry Permit, Site Form A-6005-717

The independent reviewer shall indicate the review by printing, signing and dating under the document initiator's name, signature and date.

#### 3.6 Record Configuration Management

#### 3.6.1 Pen and Ink Changes

Handwritten modifications to record material are made using a single line through the wording to be modified. The modification will be legibly written in. The modifier shall initial and date the change.

Pen and ink changes to sampling plans shall be incorporated in the next formal revision to the document.

#### 3.6.2 Revisions

Monitoring/sampling plans and reports are managed using version control. When the document is revised it is identified as R1, R2, etc. Original and revisions are record material. Approvals are dependent on the type of plan or report as defined in Sections 3.1 and 3.2.

#### 4.0 FORMS

IH DRI Functional Test Data, Site Form A-6003-861 IH Personal Data Form, Site Form A-6003-857 IH Sampling Pump Functional Test Data, Site Form A-6003-862 Industrial Hygiene Chain of Custody and Laboratory Request, Site Form A-6004-114 Industrial Hygiene Noise Dosimetry Survey, Site Form A-6004-735 Industrial Hygiene Noise Survey, Site Form A-6004-736 Industrial Hygiene Surface Sampling Field Log, Site Form A-6004-078 WBGT Monitoring form, Site Form A-6004-691 Hanford Confined Space Hazard Identification Form, Site Form A-6005-724 Hanford Confined Space Entry Permit, Site Form A-6005-717

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#### 5.0 RECORD IDENTIFICATION

All records are required to be managed in accordance with PRC-PRO-IRM-10588, *Records Management Processes*. OCRWM records are also managed in accordance with PRC-PRO-QA-19579, *OCRWM Records Management*.

Notification of Industrial Hygiene Monitoring Results is generated from this procedure. It is an exposure and quality record and must be retained according to the National Archives and Records Administration (NARA)-approved record schedule for the DOE (currently 75 years). Secretary of Energy (SEN) moratorium on destruction: All exposure records are currently superseded by an indefinite moratorium on destruction of epidemiological information. This moratorium will remain in effect pending further direction from DOE.

All employee notifications, either personal notification letters or public postings, are records. Completed records must be forwarded to the OS&IH Programs for disposition in accordance with DOE Records Schedule 1; MEDICAL, HEALTH, AND SAFETY RECORDS (DOERS 1.4.c.).

#### **Records Capture Table**

Name of Record	Submittal Responsibility	Retention Responsibility	OCRWM Retention Schedule (If OCRWM Related)	
Laboratory Reports including signed Chain of Custody	IH personnel	CHPRC	N/A	
Employee Notification Letters	for company initiating	OS&IH Programs		
Building/Area Monitoring Postings	monitoring			

#### 6.0 SOURCES

#### 6.1 Requirements

10 CFR 850, Chronic Beryllium Disease Prevention Program
10 CFR 851, Worker Safety and Health Program
29 CFR 1910.1020, Access to Employee Exposure and Medical Records
29 CFR 1910 and 1926, Substance Specific Standards
29 CFR 1910 Subpart Z, Toxic and Hazardous Substances
CRD M 231.1-2, Supp Rev 7, Occurrence Reporting and Processing of Operations Information
SCRD O 471.3, Identifying and Protecting Official Use Only Information
National Archives and Records Administration, http://www.archives.gov/index.html

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#### 6.2 References

 PRC-MP-MS-003, Integrated Safety Management System/Environmental Management System Description (ISMSD)
 PRC-PRO-IRM-112, Forms Control
 PRC-PRO-IRM-10588, Records Management Processes
 PRC-PRO-QA-19579, OCRWM Records Management
 DOE-0360, Hanford Site Confined Space Procedure (HSCSP)

#### 6.3 Basis Documents

PRC-PRO-IRM-184, Information Protection and Clearance PRC-PRO-IRM-8310, Document Control Processes PRC-PRO-SH-17916, Industrial Hygiene Baseline Hazard Assessments PRC-MD-SH-40384, Analysis and Reporting of Beryllium Characterization Data

#### 7.0 APPENDIXES

Appendix A - Glossary

Appendix B - Sample Identification Numbering Standard

Appendix C - DOE & OSHA-Driven Time Requirements

Appendix D - Sample/Blank Posting of Monitoring Results

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### Appendix A - Glossary

Term	Definition				
Employee Exposure Measurement	A quantitative monitoring or sampling result that was obtained to assess an actual or potential exposure level. Examples would include personal samples and area samples that were obtained to estimate employee exposure levels.				
Exposure	The act of subjecting an employee to a chemical, physical, or biological agent during the course of employment through any route of entry (inhalation, ingestion, skin contact, or absorption), and including past exposure and potential exposure. It does not include situations where the employer can demonstrate that the toxic substance or harmful physical agent is not used, handled, stored, generated, or present in the workplace in any manner different from typical non-occupational situations.				
Invalid Result	An IH survey result that cannot be used to draw a conclusion due to a significant error in collection or analysis, such as but not limited to, survey instrumentation failure, survey instrument or analytical instrument calibration out of tolerance, contamination, corruption or loss of sample, or incorrect analytical method.				
IH Personnel	An industrial hygienist or industrial hygiene technician involved in the monitoring or sampling process.				
Managed Forms	Forms originated on the Hanford Site in conventional or electronic format that:				
	<ol> <li>Cross divisional or departmental lines, within or across contractor organization/agency; and/or</li> </ol>				
	2. Are required by state or federal law, DOE order, company policy or procedure, or are defined in a controlled manual; and/or				
	3. Are required for audit traceability or otherwise becomes an official document of record when completed.				
Monitoring	The process of evaluating the level of a material or agent using a direct reading instrument and comparing the results obtained to acceptable values.				

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Term	Definition	
Occupational Exposure Limits	<u>ACGIH® TLV®-TWA</u> : Time-weighted average concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be exposed day after day without adverse effect.	
	<u>ACGIH® TLV®-STEL:</u> (Short Term Exposure Limit) A 15 minute TWA exposure That should not be exceeded at any time during the workday, even if the 8-hour TWA is within the TLV®-TWA. Exposures above the TLV®-TWA up to the TLV®-STEL should be less than 15 minutes and should occur no more than 4 times per day, with 60 minutes between successive exposures.	
	<u>ACGIH® TLV®-C:</u> (Ceiling) A concentration that should not be exceeded during any part of the workday.	
	<u>OSHA PEL</u> : Maximum level of exposure to a hazardous agent to which an employee may be exposed over a specified time period as mandated by OSHA 29 CFR 1910 or 1926.	
	<u>DOE-Prescribed Exposure Limit</u> : Any mandatory limit on employee exposure to a hazardous chemical, physical or biological agent that is contained in a DOE regulation, order or technical standard.	
Sampling	The process of collecting one or more representative samples from the work environment to quantitatively evaluate the level of the chemical or agent present. This usually involves sampling an individual (personal) or sampling the immediate work area (area).	
Suspect Result	An IH survey result that is questionable due to problematic circumstances or conditions, such as but not limited to, insufficient sample volume collected, sample breakthrough of collection media, or not using the preferred analytical method. These data may be used with a thorough understanding of their limitation.	
Unusual Occurrence	Exposures to hazardous substances in excess of OSHA permissible exposure limits when the overexposed employee was not using the appropriate respiratory protection.	

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#### Appendix B - Sample Identification Numbering Standard

The SWIHD system generates the prefix of a sample identification number, by using the computer generated survey number. The IH or IHT enters the remaining numbering. If the database is unavailable, the IH or IHT will generate a unique number.

For active sampling, meaning sample media in use with a sampling pump, the numbering scheme is as follows.



For passive sampling, meaning sampling media without the use of a sampling pump such as a dosimeter or summa canister, the number scheme is as follows.



**NOTE**: In the event of media with pre numbered unique identifiers, such as Nitrous Oxide badges, the unique identifier should be used in the place of the sequential number.

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#### Appendix C - DOE & OSHA-Driven Time Requirements

The information below is provided only to assist in determining employee notification time requirements. Refer to the applicable standards for the actual requirements since the information below may be dated material. The values are for both OSHA General Industry (citation provided) and OSHA Construction Standards unless noted otherwise.

Beryllium, DOE 10 CFR 850.24	10 working (business) days
1,2-dibromo-3-chloropropane; 1910.1044;	5 working (business) days
1,3-Butdiene; 1910.1051;5	5 working (business) days; Construction None
Acrylonitrile; 1910.1045;	5 working (business) days
Coke oven emissions; 1910.1029;	5 working (business) days
Inorganic Arsenic; 1910.1018;	5 working (business) days
Lead; 1910.1025;	5 working (business) days
Vinyl Chloride; 1910.1017;10	) working (business) days; Construction None
Asbestos; 1910.1001;15 working (business)	days; Construction 5 working (business) days
Benzene; 1910.1028;	15 working (business) days
Cadmium; 1910.1027;15 working (business)	days; Construction 5 working (business) days
Ethylene oxide; 1910.1047;	15 working (business) days
Formaldehyde; 1910.1048;	15 working (business) days
Glycol ethers; 1910.1031(proposed)15	working (business) days; Construction: None
Methylene chloride; 1910.1052;	15 working (business) days
Methylene dianiline; 1910.1050;	15 working (business) days
Noise; 1910.95; employees must be notifi	ed if 85 dBA or more but no day requirement;
Construction.	None
Hexavalent Chromium; 1910.1026;	15 working (business) days;
Construction	5 working (business) days

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### Industrial Hygiene Monitoring, Reporting and Records Management

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#### Appendix D - Sample/Blank Posting of Monitoring Results

#### AIR SAMPLE MONITORING RESULTS

### AGENT SAMPLED FOR: \_\_\_\_\_

BRIEF DESCRIPTION OF TASKS							
Comments: Information, if needed, to better explain the context of the sampling performed.							
PERSONAL AIR SAMPLE RESULTS							
CRAFT	Sample	Result	Sample	Result	Sample	Result	
	Date/No.	(units)	Date/No.	(units)	Date/No.	(units)	
Millwright							
Painter							
Driller							
Notes:							
	Α	REA AIR	SAMPLE RE	SULTS			
	Sample	Result	Sample	Result	Sample	Result	
	Date/No.	(units)	Date/No.	(units)	Date/No.	(units)	
Area samples are							
representative							
quality in the							
work area.							
Notes:							