

Industrial Hygiene Monitoring, Reporting and Records Management

MSC-PRO-409

Revision 3

Effective Date: October 16, 2014

Topic: Worker Protection

Approved for Public Release;
Further Dissemination Unlimited

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CHANGE SUMMARY

Rev. 3

Description of Change:

HPMC changed the email address that appears in Section 5.2.1 Step 7 and 5.2.2 Step 3. Remove reference to MSC-PRO-184, replace with MSC-PRO-54603.

Rev. 2

Description of Change:

Revised all to reflect the electronic process in SWIHD and IDMS; to include direction on uniform and consistent content for notification of personal exposure monitoring results; to include direction or guidance on timely completion of IH survey records; to include direction on documenting IH evaluation of surveys relating to an instrument notice of discrepancy (NOD); to include information on SWIHD surveys with OOU markings and IDMS; Streamlined overall procedure.

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1.0 PURPOSE

This procedure provides the administrative process for the generation, documentation, storage and disposition of industrial hygiene exposure monitoring records in accordance with the regulatory recordkeeping requirements.

2.0 SCOPE

This Level 2 Management Control Procedure is applicable to Mission Support Alliance, LLC (MSA) employees, subcontractors, and sub-tier contractors. This procedure applies to the Mission Support Alliance (MSA) electronic records generated using the MSA portal of the Site Wide Industrial Hygiene Database (SWIHD) and standardized forms/templates used to document monitoring and sampling performed by IH personnel to assess potential work place exposures. This includes, but is not limited to, data generated from personal, area, bulk, and surface sample collection, direct reading monitoring, and observations performed to assess employee exposures to physical, chemical, biological and ergonomic hazards.

This procedure is an implementing mechanism of [MSC-MP-003](#), *Integrated Environment, Safety and Health Management System Description*, (ISMS) elements Guiding Principle 5: "Identify Hazards, Environment, Safety and Health (ES&H) Standards and Requirements" and Core Function 5: "Provide Feedback and Continuous Improvement".

3.0 IMPLEMENTATION

This document is effective upon publication.

4.0 REQUIREMENTS

Records requirements as they apply to the documents covered in this procedure are implemented in accordance with the following:

- 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 Subpart Z, *Toxic and Hazardous Substances*
- 29 CFR 1926 Subpart Z, *Toxic and Hazardous Substances*
- CRD O 232.2, Supp Rev 0, *Occurrence Reporting and Processing of Operations Information*
- CRD O 471.3, Supp Rev 1, *Identifying and Protecting Official Use Only Information*

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5.0 PROCESS

Planning, documenting, reporting, and managing industrial hygiene survey records using SWIHD and the Integrated Document Management System (IDMS) involves the following:

- Downloading SWIHD from Software Distribution
- Requesting user access to SWIHD from ^MIHD@rl.gov
- Data entry of field and laboratory information into SWIHD survey screens
- Processing the survey through all the phases as the survey status progresses
- Communicating results to employees, line management, and the Site Occupational Medicine Provider (SOMP)
- Managing electronic records in IDMS

5.1 Sampling Plans

Sampling plans are utilized as reference instructions for data collection and as a means to record characterization or sampling, including monitoring, strategies for the historical record. A monitoring/sampling plan may be a document, form, or just a category description in SWIHD to make it easier to report the data later. Use the *Industrial Hygiene Sample Plan* (Site Form A-6005-864) or *Beryllium Characterization/Verification Sampling Plan* (Site Form A-6006-167), as required in DOE-0342 and associated procedures.

Actionee	Step	Action
IH	1.	Request a sample plan number from ^MIHD@rl.gov. Include the title, author, effective start date and end date, if applicable, for the plan in the request.
Database Administrator	2.	Make the title and number of the plan available in the database.
IH	3.	Select the plan number from the menu in SWIHD for a specific survey and attach the sample plan to the survey.

5.2 Surveys

This section discusses the process and requirements for generating surveys using SWIHD for documenting industrial hygiene exposure assessment activities. If the existing method or form does not meet the needs due to an unusual situation, the project IH must coordinate with the database administrator and records custodian to ensure required information will be collected in an acceptable format to meet operational and recordkeeping requirements. It is the management expectation that a survey record is normally completed in SWIHD within 30 calendar days of receiving results (e.g., instrument readings or analytical results) for the survey event.

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Management approval of a plan for completion is required if survey records cannot be completed in this time period.

The SWIHD system does not represent the record material. It is used as a means to collect and access the data. The completed survey and related attachments, sent to long term retention storage in IDMS, 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 are required. SWIHD is programmed to support these types of record revisions, storing the original and revisions in IDMS.

All equipment and calibration standards used shall be within calibration and expiration dates. The equipment must function within established parameters for pre and post use functional tests. The Project IH will evaluate the impact that deviations from these requirements may have on the validity of the data. This includes evaluation of survey results affected by a Notice of Discrepancy (NOD) or Out of Tolerance conditions. The Project IH shall document the evaluation in the comments or Out of Tolerance sections of the Survey, as appropriate.

SWIHD programming includes placing the required official use only markings on surveys that are designed to collect personal information and storing completed surveys in IDMS OOU folders with restricted access to protect the OOU information. Industrial hygienists shall place OOU information only in SWIHD surveys that include the required markings. Any exceptions must be addressed by contacting MIHD and/or the IH records custodian (IHRC) to ensure appropriate markings and protection of OOU information can be accomplished.

5.2.1 Air, Surface, Bulk Sampling Surveys

The process for documenting sampling surveys using SWIHD is described in this section. Backup forms can be used, as described in a later section, if SWIHD is not available. See Appendix A, SWIHD Survey Status Flow.

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
IH	1.	Verify the instrument's calibration dates are current, if applicable. If there are discrepancies with dates, then 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. Complete the control account charge number (CACN) and code of accounts (COA).

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<i>Actionee</i>	<i>Step</i>	<i>Action</i>
	4.	Retain a signed copy when the samples are relinquished to the laboratory for in process tracking purposes.
Database Administrator	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. Compare the results to the associated limits.
	7.	If the sampling is to assess personal exposure, then review the SWIHD generated notification letter found in the Preview tab (See Appendix B for an example of the SWIHD template for air sampling). Verify the OUC markings are on the letter. Modify the letter, as needed, and save the changes in SWIHD. Attach the letter as a PDF in SWIHD. Distribute the personal notification letters to the employee, the employee's supervisor, and the Site Occupational Medical Provider at ^OMC INDUSTRIAL HYGIENE@rl.gov . Using notification letter templates that differ from those generated in SWIHD require IH program management authorization.
		NOTE: See Appendix C for regulatory requirements regarding timely employee notifications.
		If not for personal exposure, skip to the next step.
	8.	Attach any additional record documents to the survey (i.e., sample plans, final reports) in the Comments tab of the survey. Only use accepted file extensions for record retention in IDMS. See MSC-PRO-32281 <i>Electronic Records</i> for more information.
	9.	Arrange for and obtain IH peer reviews, as necessary, using a graded approach depending on program requirements (e.g., DOE-0342) and management direction.
		NOTE: IH peer reviews include a review of the files and attachments that support the SWIHD survey.
	10.	If there is an out of tolerance condition or Notice of Discrepancy identified that is relevant to the survey, perform and document in the survey an evaluation of the effect on the sampling results. This may

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<i>Actionee</i>	<i>Step</i>	<i>Action</i>
		require opening the survey record to add the evaluation documentation. Contact ^MIHD@rl.gov to open the record as needed.
	11.	Complete Surveys in SWIHD within 30 calendar days of receipt of analytical results.

5.2.2 Direct Reading Instrument, Heat Stress, Noise Monitoring Surveys

This section describes the process for documenting direct reading instrument (DRI) monitoring surveys, including heat stress and noise instruments, using SWIHD. See Appendix A for the SWIHD Survey Status Flow.

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
IH	1.	Verify the instrument’s calibration dates are current. If there are discrepancies with dates, then contact the IHES.
	2.	Transcribe field data, including readings, into the database.
	3.	If the monitoring is to assess personal exposure to noise, then review the SWIHD generated notification letter found in the Preview tab (See Appendix D for an example of the SWIHD template for noise sampling). Verify the OUO markings are on the letter. Modify the letter, as needed, and save the changes in SWIHD. Attach the letter as a PDF in SWIHD. Distribute the personal notification letters to the employee, the employee’s supervisor, and the Site Occupational Medical Provider at ^OMC INDUSTRIAL HYGIENE@rl.gov.
		If not monitoring for personal exposure to noise, skip to the next step.
	4.	Attach any additional record documents to the survey (i.e., sample plans, final reports) in the Comments tab of the survey. Only use accepted neutral file types for record retention in IDMS. Refer to MSC-PRO-32281 for more information on acceptable file types.
	5.	Arrange for and obtain IH peer reviews, as necessary, using a graded approach depending on program requirements and management direction.

NOTE: *IH peer reviews include a review of the files and attachments that support the SWIHD survey.*

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<i>Actionee</i>	<i>Step</i>	<i>Action</i>
	6.	If there is an out of tolerance condition or Notice of Discrepancy identified that is relevant to the survey, perform and document in the survey an evaluation of the effect on the sampling results. This may require opening the survey record to add the evaluation documentation. Contact ^MIHD@rl.gov to open the record as needed.
	7.	Complete Surveys in SWIHD within 30 calendar days of collecting the instrument readings.

5.2.3 Survey Backup Forms

Contact the database administrator at ^MIHD@rl.gov for assistance in assigning temporary survey and sample numbers, if necessary, to survey backup forms. This will aid in ensuring the analytical data received from the laboratory electronically can be matched to the SWIHD generated survey and sample number. The site forms listed in section 6.0 are available to record data if the database is unavailable and data or samples need to be processed immediately. Any forms used must be maintained as records. This can be accomplished by entry into SWIHD, when available, or other approved methods.

5.3 Employee Notification of Monitoring Results

After receipt of any monitoring results for DOE or OSHA regulated agents, notify the affected workers of monitoring results in writing. Required notification timeframes are specific to the regulated agent (see Appendix C). This notification of monitoring results must be made personally to the affected worker (See Appendices B and D). Alternatively, the notification can be posted in a location that is readily accessible to the affected worker, but in a manner that does not identify the individual to other workers (See Appendix E for an example Posting). If the monitoring results indicate that a worker's exposure is at or above a specified regulatory level (i.e., action level or occupational exposure level), the notification must include a statement that the specified level has been met or exceeded; and a description of the corrective action being taken by management to reduce the worker's exposure to below the specified level, if practicable. Refer to the specific exposure standard for the relevant exposure level of interest (i.e., action level or permissible exposure level). A copy of the employee's personal notification letter shall be provided to the Site Occupational Medical Provider. All notification letters or postings shall be attached to the survey record. As a best management practice, notification of exposure results for non-regulated agents should be addressed in a similar manner and within 15 working days. It is important for the IH to refer to DOE-0342 for specific Hanford beryllium exposure notification requirements.

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5.4 Handling Documents Marked as OUO

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
IH Personnel and IH Program management	1.	<p>Refer to MSC-PRO-54603, or related procedure, for more detailed information. With respect to records marked as OUO:</p> <ol style="list-style-type: none"> a. Provide personal exposure information only to those individuals with a “need to Know” such as the employee to whom the data applies, the employee’s line management, occupational medicine personnel, and other industrial hygiene staff members. b. Do NOT allow documents with personal exposure information to be viewed by those who do not have a “need to know”. c. When transmitting documents containing personal exposure information: <ul style="list-style-type: none"> • Place hard copy documents in an envelope labeled “TO BE OPENED BY ADDRESSEE ONLY” and seal the envelope; • The first line of the email message shall contain the abbreviation “OUO” before the beginning of the message text (not in the email subject line). • If the message itself is not OUO, but attachments or hyperlinks contain OUO information, the first line of the email message shall state “Attachments/Links Contain OUO.”

5.5 Industrial Hygiene Records Management

The IH program management is responsible for IH records management supported by the IH Records Custodian (IHRC).

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
IHRC	1.	Serve as the Hanford primary point of contact for industrial hygiene records management.
	2.	Maintain the MSA Industrial Hygiene records in compliance with the requirements of 10 CFR 851.26 and 29 CFR 1910.1020.
	3.	Retrieve information from legacy IH data systems such as HIH2, as well as IDMS. Support IH personnel, the database administrator, and other appropriate personnel in searching and retrieving information from IDMS via SWIHD.

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<i>Actionee</i>	<i>Step</i>	<i>Action</i>
	4.	Maintain appropriate storage, handling and access control of OUO documents that relate to personal exposure, including employee exposure monitoring assessments notification data packages received from IH personnel. IH records (both hard copy, if any, and electronic) will be kept in compliance with both OSHA and DOE requirements, as well as MSC-PRO-10588, MSC-RD-210 and MSC-PRO-54603. This function will be performed by the IHRC in accordance with MSC-PRO-10588 and MSC-PRO-54603.
	5.	Respond to requests from the project IH for access to employee exposure records submitted by employees or their authorized representatives (see section 5.6).

5.6 Requests for Exposure Assessment Data

IH program management, delegate, or IH records custodian, shall assure that requested information is provided in a reasonable time, place, and manner. If IH program management cannot reasonably provide access to the record within 15 working days, IH program management shall 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.

IH program management 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).

5.7 Database Administration

IH program management, or delegate, is responsible for implementing SWIHD in accordance with MSC-PRO-309.

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
Database Administrator	1.	Update data sets and data tables within SWIHD to ensure real-time data configuration for day to day operations.
	2.	Coordinate programming needs, perform testing of database releases.
IH Personnel	3.	Involve the database administrator at ^MIHD or via telephone with any new agents, media, analytical requests, buildings, structures, and in some cases components which need to be added into the data tables before starting a survey.

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6.0 FORMS

- A-6001-758 Industrial Hygiene Air Sample Survey
- A-6001-758.1 Industrial Hygiene Air Sample Survey - OUO
- A-6004-061 Industrial Hygiene Bulk Sample Survey
- A-6004-313 Industrial Hygiene Direct Reading Instrument Survey
- A-6001-760 Industrial Hygiene Direct Reading Instrument Survey
- A-6001-760.1 Industrial Hygiene Direct Reading Instrument Survey- OUO
- A-6001-761 Industrial Hygiene Noise Dosimetry Survey
- A-6001-762 Industrial Hygiene Noise Survey
- A-6005-864 Industrial Hygiene Sample Plan
- A-6001-759 Industrial Hygiene Wipe Sample Survey

7.0 RECORD IDENTIFICATION

Records Capture Table

Type of Document	Submittal Responsibility	Retention Responsibility
Completed IH Surveys and supporting documents	IH personnel for company	MSA Industrial Hygiene Program Manager

8.0 REFERENCES

8.1 Source References

- DOE-0342, *Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP)*
- 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 Subpart Z, *Toxic and Hazardous Substances*
- 29 CFR 1926 Subpart Z, *Toxic and Hazardous Substances*
- CRD O 232.2, Supp Rev 0, *Occurrence Reporting and Processing of Operations Information*
- CRD O 471.3, Supp Rev 1, *Identifying and Protecting Official Use Only Information*

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8.2 Working References

[MSC-MP-003](#), *Integrated Environment, Safety and Health Management System Description (ISMS)*

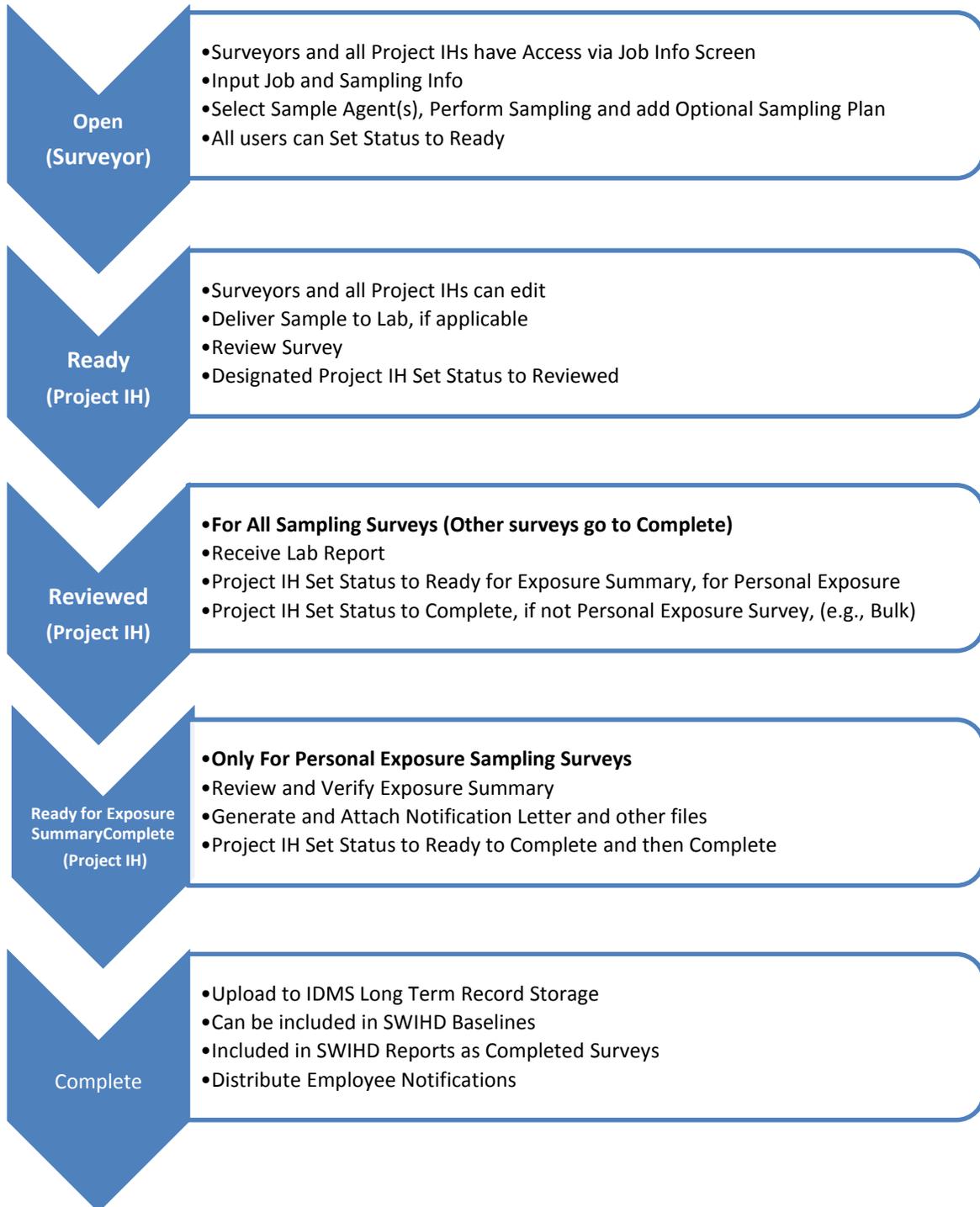
[MSC-PRO-54603](#), *Identifying, Marking, and Protecting Official Use only (OUO) Information*

[MSC-PRO-10588](#), *Records Management Processes*

[MSC-RD-210](#), *Records Management Program*

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Appendix A SWIHD Survey Status Flow (User Opening Page Survey List)



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APPENDIX B
SWIHD Template Employee Notification of Personal Air Sampling Results
EMPLOYEE NOTIFICATION OF PERSONAL SAMPLING RESULTS
OUO
Workplace Sampling Results

Notification Date: 09/04/2013
[Employee Name (HID)]
MSIN: R3-19
Sample Date: 08/19/2013
Survey Number: 13-60642

Dear [Employee Name]:

On 08/19/2013, Industrial Hygiene conducted personal sampling at the 200W BLDG - 201W, area. At the time of sampling, you were engaged in the following task: Beryllium characterization sampling of 201W/2713WC. Personal sampling provides you with a quantitative assessment of your representative exposure level.

The following controls were in place:
PPE: Gloves, Safety Glasses, Substantial Footwear

The occupational exposure limits (OEL) represent the level under which it is believed that nearly all workers may be repeatedly exposed, day after day, over a working lifetime without adverse health effects. On 08/19/2013 your sample results were:

Agent	Result	Type	OEL	Reference
Beryllium	<Det*	8 hr TWA	0.002 mg/m3	OSHA

* The detectable limit is the lowest amount of chemical that the current analytical technology can measure.

Sample results show that exposures are below the OEL for the task performed.

A copy of this letter is sent to the Site Occupational Medical Contractor. If you have any questions regarding this letter, please contact me at (509)376-xxxx.

Sincerely,

[Name], Industrial Hygienist
Mission Support Alliance, LLC
cc: Site Occupational Medical Contractor
File / Mission Support Alliance, LLC

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APPENDIX C Employee Exposure Notifications

NOTE: *The information below is provided only to assist in determining timely employee notification requirements. Refer to the applicable standards for the specific requirements. The values given in the table are for both OSHA General Industry and OSHA Construction Standards. Differences are bolded and noted with an asterisk to indicate a 5 working day requirement for construction.*

Agent (Standard)	Working Days (Construction difference)
Beryllium, (10 CFR 850.24)	10
1,2-dibromo-3-chloropropane, (29 CFR 1910.1044)	15
1,3-Butdiene; (29 CFR 1910.1051)	15
Acrylonitrile, (29 CFR 1910.1045)	15
Coke oven emissions, (29 CFR 1910.1029)	15
Inorganic Arsenic, (29 CFR 1910.1018)	15
Lead, (29 CFR 1910.1025)	15
Vinyl Chloride, (29 CFR 1910.1017)	15
*Asbestos; (29 CFR 1910.1001)	15 (5)
Benzene; (29 CFR 1910.1028)	15
*Cadmium; (29 CFR 1910.1027)	15 (5)
Ethylene oxide; (29 CFR 1910.1047)	15
Formaldehyde; 29 CFR 1910.1048)	15
Methylene chloride; (29 CFR 1910.1052)	15
Methylene di-aniline; (29 CFR 1910.1050)	15
*Hexavalent Chromium; (29 CFR 1910.1026)	15 (5)

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INDUSTRIAL HYGIENE NOISE MONITORING

APPENDIX D

SWIHD Template Employee Notification of Personal Noise Monitoring Results

OUO Workplace Noise Monitoring

Notification Date: 12/15/2012

[Employee Name (HID)]
MSIN: S2-95
Monitoring Date: 12/11/2012
Survey Number: 12-60526

Dear [Employee Name]:

On 12/11/2012, Industrial Hygiene conducted noise monitoring at the 600 BLDG - 6290, crane and rigging loft and associated buildings. At the time of monitoring, you were engaged in the following task: Routine supervisor duties. Noise monitoring provides you with a quantitative assessment of your representative noise exposure level.

The following controls were in place:
PPE: Safety Glasses, Safety Shoes

The occupational exposure limits (OEL) represent the level under which it is believed that nearly all workers may be repeatedly exposed, day after day, over a working lifetime without adverse health effects. On 12/11/2012 your monitoring results were:

Agent Result

Noise 73.8 dbA

Monitoring results show that exposures are below the OEL for the task performed.

A copy of the results will be sent to the Site Occupational Medical Contractor. If you have any questions regarding this report, please contact me at (509)373-xxxx.

Sincerely,

[Name], Industrial Hygienist
Mission Support Alliance, LLC

cc: Site Occupational Medical Contractor
File / Mission Support Alliance, LLC

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APPENDIX E Example Posting of Monitoring Results

AIR SAMPLE MONITORING RESULTS

AGENT SAMPLED FOR: _____

TLV/PEL for AGENT: _____

Action Level for AGENT: _____

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

POSTING DATE:

REMOVAL DATE: