

# Gas Hazards Procedure

January 2023

#### **Purpose**

It is the intention of IPS★ITCS to provide gas hazards training and detection equipment that meets or exceeds all federal standards. This program is associated with our Respiratory Protection Program.

### Scope

This program applies to all IPS★ITCS projects and operations.

This program supplements the IPS★ITCS Respiratory Protection Program that is in place in accordance with 29 CFR 1910.134, Confined Space Program in accordance with 29 CFR 1910.146, and Inert Entry Operations Procedure in accordance with API 2217a.

#### **Procedure**

Gas Hazards Equipment

- Each employee shall use a portable gas monitor as required in all high gas or potentially high hazard areas.
- The gas monitor must be calibrated prior to use per manufacturer's recommendations and contain a current calibration sticker on the monitor providing the date of last calibration.
- Bump tests are required to be completed at the beginning of each day the monitor is in use per the requesting Owner Client and manufacturer's guidelines to ensure the monitor is functioning correctly.

#### **Owner Client Contingency Plans Awareness**

IPS★ITCS shall insure all employees are aware of the Owner Client's contingency plan provisions including evacuation routes and alarms. IPS★ITCS employees shall participate in emergency evacuation drills and practice rescue procedures.

#### **Use, Maintenance and Care of Gas Monitors**

- Only utilize monitors issued by either IPS★ITCS or made available by the Owner Client
   no personal monitors are allowed.
- Have the gas monitor on the outside of all clothing.
- Check the calibration date prior to bump testing. If the calibration date is expired turn the unit in immediately and do not use.
- Bump test each shift prior to using the monitor.
- Monitors are sensitive equipment avoid physical damage and immediately report any monitor that does not appear to be performing as expected

Version: 1.1 Date Last Modified: 12.5.2022 Author: Shayne Torrans Pages 2 of 9

### **Training**

All affected employees will receive gas hazards awareness training before their initial assignment and annually thereafter. This shall be in conjunction with the IPS★ITCS Respiratory Protection training.

Training shall address, as a minimum:

- Locations of alarm stations
- Gas Monitoring Equipment- Portable and Fixed Detection
- Gas Alarms
- Gas Hazards Characteristics of gases, to include oxygen deficiency, oxygen or nitrogen enrichment, carbon monoxide and Hydrogen Sulfide
- Any plant or department specific gases of concern
- · Signs and symptoms of overexposure
- Personnel Rescue Procedures
- Use and care of Self-Contained Breathing Apparatus (SCBA) includes donning and emergency procedures (if applicable)
- Evacuation Procedures
- Staging Areas Primary and Secondary

Gas Hazard Awareness training shall be documented and available for review.

Version: 1.1 Date Last Modified: 12.5.2022 Author: Shayne Torrans Pages 3 of 9

## **Revision History**

Approvals:

Signature

| Rev | Rev Date  | Rev By         | Approved By    | Description                |
|-----|-----------|----------------|----------------|----------------------------|
| 1.0 | 1.3.2022  | Shayne Torrans | Shayne Torrans | Initial Procedure Document |
| 1.1 | 12.5.2022 | Shayne Torrans | Shayne Torrans | Format Revision            |
|     |           |                |                |                            |
|     |           |                |                |                            |
|     |           |                |                |                            |
|     |           |                |                |                            |
|     |           |                |                |                            |
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| Procedure Owner |      |
|-----------------|------|
|                 |      |
| Print Name      | Date |
|                 |      |

Version: 1.1 Date Last Modified: 12.5.2022 Author: Shayne Torrans Pages 4 of 9

## **Competency Assessment**

| No.        | Questionnaire | C/NYC |
|------------|---------------|-------|
| Q1         |               |       |
| A1         |               |       |
| Q2         |               |       |
| A2         |               |       |
| Q3         |               |       |
| A3         |               |       |
| Q4         |               |       |
| A4         |               |       |
| Q5         |               |       |
| <b>A</b> 5 |               |       |

| Enclosed Attachments            |   |
|---------------------------------|---|
| Risk Assessment                 | V |
| Environmental Aspect and Impact |   |
| Training and Competency         | Ø |
| Measure and Evaluation Tools    | Ø |

Version: 1.1 Date Last Modified: 12.5.2022 Author: Shayne Torrans Pages 5 of 9

## **Competency Checklist**

To be filled out by Trainer and signed by Employee, Assessor and Supervisor before being returned to the HSEQT Manager for recording purposes.

| Procedure   | Competen              | су            | Date | Competen<br>YES / NO | 2                  |  |
|---|-----------------------|---------------|------|----------------------|--------------------|--|
|   |                       |               |      |                      |                    |  |
|   |                       |               |      |                      |                    |  |
|   |                       |               |      |                      |                    |  |
|   |                       |               |      |                      |                    |  |
|   |                       |               |      |                      |                    |  |
|   |                       |               |      |                      |                    |  |
|   |                       |               |      | (Please tio          | k appropriate box) |  |
| This employee is  | competent in perform  | ning the job. |      |                      |                    |  |
| This employee ha  | s not attained the co | mpetency le   | vel. |                      | *                  |  |
| If the employee has not attained all competency levels, the General Manager must assess the action to be taken, provide an extension of training or alternative action as listed below. |                       |               |      |                      |                    |  |
| Alternate action to   | be taken:             |               |      |                      |                    |  |
|   |                       |               |      |                      |                    |  |
| Signed By   | Employee:             |               |      |                      | Date:              |  |
|   | Trainer:              |               |      |                      | Date:              |  |
|   | Assessor:             |               |      |                      | Date:              |  |
|   | Regional Manager:     |               |      |                      | Date:              |  |

Version: 1.1 Date Last Modified: 12.5.2022 Author: Shayne Torrans Pages 6 of 9

### **Environmental Aspects and Impacts**

### Identified Environmental Aspects and Impacts

The following table is a summary of the likely environmental aspects and impacts that may be identified during site inspections. The significance of each impact needs to be assessed using the Risk Assessment Model.

| Activity                                  | Aspect  | Impact   |  |  |
|---|---|--|--|--|
|   | Consumption of goods                                  | Conservation of natural resources  |  |  |
| Purchasing &                              | Consumption of energy<br>(eg. Electrical equipment    | Release of greenhouse gases and atmospheric pollution;   |  |  |
| Administrative Work                       | and facilities)                                       | Consumption of natural resources; Habitat loss   |  |  |
|   | Generation of waste (eg. Paper)                       | Consumption of space for waste disposal;<br>Habitat loss   |  |  |
| Climate Control                           | Consumption of energy                                 | Release of greenhouse gases and atmospheric pollution; Consumption of natural resources; Habitat loss  |  |  |
|   | Generation of noise                                   | Disturbance to community; Habitat loss   |  |  |
| Cleaning of – offices / vehicles          | Storage, use and release of chemicals                 | Contamination of air, water or soil;<br>Risk to human health   |  |  |
|   | Consumption of energy  Consumption of goods (eg. Oil) | P lease of greenhouse goses and a unospheric od luro;  Consumption of natura resources; Loss of habitat at all stages of generation; Light pollution  Consumption unatura resources; Generation of waste; Habitat loss; Biodiversity impacts |  |  |
| Transport (Fleet vehicles / staff travel) | Generation of waste (eg. Oil)                         | Consumption of space for waste disposal;<br>Potential contamination of water or soil;<br>Habitat loss  |  |  |
|   | Exhaust emission                                      | Release of greenhouse gases and atmospheric pollution  |  |  |
|   | Use of dangerous goods (eg. Batteries)                | Potential contamination of air, water or soil;<br>Risk to human health   |  |  |
|   | Generation of noise                                   | Disturbance to community; Habitat degradation  |  |  |
|   |   |  |  |  |
| Operations                                |   |  |  |  |
|   |   |  |  |  |

Version: 1.1 Date Last Modified: 12.5.2022 Author: Shayne Torrans Pages 7 of 9

### Risk Assessment



| Risk Ass                            | essment // insert name here   |  |  |   |  |
|-------------------------------------|---|--|--|---|--|
| Step No:<br>Logical<br>sequenc<br>e | Sequence of Basic Job Steps documented in the Procedure, Work Instruction and project plans. Break down Job into steps.  Each step should be logical and accomplish a major task. | Potential Safety & Environmental Hazards/Impacts at the site of the Job  Identify the actual and potential health and safety hazards and the environmental impacts associated with each step of the job. | Risk Rating  Refer to the risk matrix or HSEQT.PRO. Risk Mgt | Recommended Corrective Action or Procedure  Determine the corrective actions necessary to reduce the risk to as low as reasonably practical (ALARP) refer to HSEQ.PRO.Risk Mgt. The risk must be rediced or controlled to ALARP before work commences.  Document who is responsible for implementing the controls to manage each hazard identified. | Risk Rating refer to the<br>risk matrix or<br>HSEQT.PRO.Risk Mgt |
| 1.                                  |   |  |  |   |  |
| 2.                                  |   |  |  |   |  |
| 3.                                  |   |  |  |   |  |
| 4.                                  |   |  |  |   |  |
| 5.                                  |   |  |  |   |  |

Version: 1.1 Date Last Modified: 12.5.2022 Author: Shayne Torrans Page 8 of 9

### **Audit**



|                      | s: insert// |   | Date:                              | Audi                 | Audited by:                                    |                               |  |
|----------------------|-------------|---|------------------------------------|----------------------|--|-------------------------------|--|
| Procedure: Insert // |             |   |                                    | Area Mgr/Supervisor: |  |                               |  |
| Item                 | Question    | ı | Evidence Sited                     | Comments             |  | Conformance<br>Score<br>0,3,5 |  |
| 1.                   |             |   |                                    |                      |  |                               |  |
| 2.                   |             |   |                                    |                      |  |                               |  |
| 3.                   |             |   |                                    |                      |  |                               |  |
| 4.                   |             |   |                                    |                      |  |                               |  |
| 5.                   |             |   |                                    |                      |  |                               |  |
| 6.                   |             |   |                                    |                      |  |                               |  |
| 7.                   |             |   |                                    |                      |  |                               |  |
|                      |             |   | CONFORMANCE SCORE:  CONFORMANCE %: | / 25                 | 0 – Non-Conf<br>3 – Continuou<br>5 – Total Con | us Improvement Opportunity    |  |

Version: 1.1 Date Last Modified: 12.5.2022 Author: Shayne Torrans Pages 9 of 9