**Module 13 Worksheet: Health and Safety Plan Development**

Fill this Health and Safety Plan while watching the video on Slide 19 of Module 12.

Hazard Summary:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Overall Chemical Hazard: | [ ] Serious | [ ] Moderate | [ ] Low | [ ] Unknown |
| Overall Physical Hazard: | [ ] Serious | [ ] Moderate | [ ] Low | [ ] Unknown |

**CHEMICAL/SITE CHARACTERISTICS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Contaminant(s)/Hazards of Concern Summary | | | | |
| Physical State | □ Liquid | □ Solid | □ Sludge | □ Gas/Vapor/Fume |
| Characteristics | □ Flammable | □ Combustible | □ Corrosive | □ Poison |
|  | □ Water Reactive | □ Air Reactive | □ Reactive | □ Volatile |
|  | □ Shock Sensitive | □ Radioactive | □ Carcinogen | □ Other  Describe: |
| Physical Hazards | □ Overhead | □ Confined Space (not Permit) | □ Below Grade | □ Trip/Fall |
|  | □ Puncture | □ Noise | □ Cut/Tear/Rip | □ Splash |
|  | □ Heat Stress | □ Engulfment | □ Cold Stress | □ Other  Describe: |
| Biological Hazards | □ Poison Oak | □ Rattlesnakes | □ Other Biological  Describe: | □ Pathogen |

**HAZARD EVALUATION**

Physical Hazards:

|  |  |  |
| --- | --- | --- |
| NO. | TASK | PHYSICAL HAZARDS |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Chemical Hazard Evaluation: See attached Hazard Evaluation Sheets for data on individual chemicals.

Chemical Hazards:

|  |  |  |  |
| --- | --- | --- | --- |
| NO. | TASK | CHEMICAL HAZARDS | LEVEL OF PROTECTION |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Action levels for evacuation of work zone pending reassessment of conditions:

• Level D: O2 <19.5% or >25%; explosive atmosphere >20% LEL; organic vapors above background levels; mercury contamination>12,500 ng/m3; other: gamma radiation > 2 x background, alpha radiation>background

• Level C: O2 <19.5% or >25%; explosive atmosphere >20% LEL; unknown organic vapor (in breathing zone) >5 ppm; mercury contamination>12,500 ng/m3; other: gamma radiation > 2 x background, alpha radiation>background

• Level B: O2 <19.5% or >25%; explosive atmosphere >20% LEL; unknown organic vapor (in breathing zone) >500 ppm; gamma radiation > 2mR/hr

• Level A: O2 <19.5% or >25%; explosive atmosphere >20% LEL; unknown organic vapor (in breathing zone) >500 ppm; particulates > mg/m3; other

|  |  |  |  |
| --- | --- | --- | --- |
| PPE Level | Suit Type | Glove Type | Other |
| A (Fully Encapsulating Suite/SCBA) |  | □ Nitrile Inner □ Latex Inner  □ Nitrile Outer □ Butyl Outer  □ Viton Outer □ Other | □ Hardhat □ Chem Boots  □ Booties |
| B (SCBA) | □ Sijel □ Tyvec  □ Saranex □ Other | X Nitrile Inner □ Latex Inner  X Nitrile Outer □ Butyl Outer  □ Viton Outer □ Other | □ Hardhat □ Chem Boots  □ Steel Toe Boots □ Booties |
| C (APR) | □ Sijel □ Tyvec  □ Saranex □ Other | X Nitrile Inner □ Latex Inner  X Nitrile Outer □ Butyl Outer  □ Viton Outer □ Other | □ Hardhat □ Chem Boots  □ Steel Toe Boots □ Booties |
| D | □ Sijel □ Tyvec  □ Saranex □ Other | X Nitrile Inner □ Latex Inner  □ Nitrile Outer □ Butyl Outer  □ Leather □ Other | □ Hardhat □ Safety Glasses  □ Steel Toe Boots □ Booties |

**Air Monitoring:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Contaminant | Type of Sample  (Area/Personal) | Monitoring Equipment | Frequency of Sampling | Action Level |
| Toxic Gases |  |  |  |  |
| IDLH Conditions |  |  |  |  |
| Percent Oxygen |  |  |  |  |
| Ionizing Radiation Gamma |  |  |  |  |
| Ionizing Radiation Gamma |  |  |  |  |
| Ionizing Radiation Alpha |  |  |  |  |
|  |  |  |  |  |

Decontamination Procedure/Solutions:

|  |  |
| --- | --- |
| Personnel: |  |
| Equipment: |  |
| Instruments: |  |

**EQUIPMENT CHECKLIST**

|  |  |
| --- | --- |
| **Instrument/Item** | **Description** |
| SCBA |  |
| Spare SCBA Tanks |  |
| Full Face APR  Cartridge Type: |  |
| Full Face PAPR  Cartridge Type: |  |
| Chemical Protective Clothing Kit |  |
| Multi-Gas Unit:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Sensors □ LEL □ Percent Oxygen □ CO □ CO2  □ HCN □ H2S □ Chlorine □ Ammonia  □ Other: □ Other: |  |
| Mercury Vapor Analyzer |  |
| Draeger Pump System,  Tube Types  1.  2. |  |
| Draeger Chip System  Chip Types  1.  2. |  |
| Radiation Equipment: |  |
| Electronic Personal Dosimeter |  |
| HAZCAT Kit |  |
| Other Monitoring Equipment: |  |

**EMERGENCY INFORMATION**

|  |  |
| --- | --- |
| EMERGENCY CONTACTS | TELEPHONE NUMBER |
| Emergency Operations Center/Spill Phone |  |
|  |  |
|  |  |
|  |  |

**SITE RESOURCES**

NOTE: To Be Completed Prior To Start of Field Work

|  |  |  |
| --- | --- | --- |
|  | NAME/CONTACT | TELEPHONE NUMBER |
| Ambulance |  |  |
| Hospital |  |  |
| Poison Control Center |  |  |
| Police |  |  |
| Fire Department |  |  |
| Site |  |  |