

# Planner Checklist

To address the personal safety of workers, the planner must consider the overall safety of the process design, as well as the way project activities are managed. The following checklist will guide planners to identify, assess, evaluate, and control chemical hazards on their work sites.

## BACKGROUND INFORMATION

### IDENTIFY OPERATIONS THAT INVOLVE CHEMICAL EXPOSURE

#### Type of Operations

Confirm the project scope and the planned operations with the potential for worker exposure to hazardous chemicals. Consider the board range of oil and gas activities, including:

- Well drilling
- Well completions and workovers
- Well and pipeline operations
- Fluid processing and conditioning
- Fluid storage, transportation and disposal

Have you identified all operations or areas involving chemicals and chemical exposure to workers?

#### Equipment Design and Layout

Identify the equipment required at the work site and the layout of that equipment. Consider:

- Working areas
- Production fluid storage, including tanks and pits
- Chemical storage and handling, including mixing areas
- Fuel and power systems
- Regulatory requirements

Have you considered equipment design and layout?

### IDENTIFY AND CONFIRM CHEMICAL MANAGEMENT RESPONSIBILITIES

#### Start-Up Meeting

A start-up meeting is an excellent way to ensure communication and chemical control planning is understood and roles and responsibilities are clarified and agreed upon. The start-up safety review should confirm the following:

- All hazardous substances have been identified and required production information is available
- All required control measures have been implemented and the associated operating, maintenance, and emergency procedures are adequate and in place
- Training of employees involved with operation is completed and documented

The start-up meeting should include a representative from each contractor and each area of the job. Chemical control roles and responsibilities should be discussed and confirmed.

Have you identified the chemical control responsibilities?

Have you confirmed who is responsible for each aspect of the chemical control plan?

Have you ensured communication between all levels in identifying and mitigating potential chemical hazards?

See [Appendix E - Start-Up Meeting Template](#) for more information.

## STEP 1 - IDENTIFY THE CHEMICAL HAZARDS

### Chemical Hazard Identification

Identify by using tools such as:

- Safety Data Sheets
- Hazard Statements
- Industry knowledge and literature

- Have you identified all chemicals and chemical mixtures to be used?
- Have you identified mixtures and blends of chemicals?
- Have you collected, reviewed, and provided the required information (SDSs and guidance sheets) for each of the chemicals to be used?
- Have you designed the safety protocol for chemical control?

## STEP 2 - ASSESS THE CHEMICAL HAZARDS

### Chemical Hazard Assessment

Assess by determining:

- Properties of the chemical (e.g. flammable, health hazards)
- Where is the chemical being used?
- How much of the chemical is being used?
- How are workers exposed?
- How long is the worker exposed to the chemical?

- Have you assessed the chemicals in regard to:
  - Its properties (e.g. flammable, health hazards)
  - Where it is being used
  - How much is being used
  - The duration of exposure to the worker
  - How workers will be exposed (e.g. inhalation, skin absorption, etc.)

## STEP 3 - EVALUATE AND ANALYZE THE CHEMICAL HAZARDS

### Chemical Hazard Assessment Matrix

Evaluate and analyze by:

- Quantifying the severity of the hazard
- Quantifying the likelihood of the hazard
- Using a matrix or equation to quantify the risk

- Have you evaluated and analyzed the chemical hazard?
- Have you done one of the following:
  - Quantified risk through a hazard assessment matrix?
  - Quantified risk through a control-banding option?
  - Quantified risk with the help of a chemical specialist (e.g. occupational hygienist or health or chemical specialist)?

## STEP 4 - SELECT A CONTROL FOR THE CHEMICAL HAZARD

### Control-Banding Approach

Develop a control plan by:

- Selecting the appropriate control approach
  - Identifying and applying the appropriate guidance sheets
  - Eliminating/substituting
  - Applying administrative controls
  - Specifying personal protective equipment (PPE)
- Have you selected the appropriate control (from the hierarchy of controls)?
- Have you considered elimination or substitution?
- Have you considered and/or designed and implemented engineering controls?
- Have you considered and communicated administrative controls?
- Have you considered and communicated the appropriate PPE to be used?
- Have you co-operated with service contractors to confirm that the appropriate hazard controls are in place, are effective, and comply with health and safety regulations?
- Have you provided all relevant chemical hazardous information (e.g. SDSs) to educate workers about potential risks for all chemicals, including produced and recycled fluids?
- Have you ensured that service contractors and chemical suppliers are providing adequate support and training about hazard assessment and controls to their workers and contractors?

## STEP 5 - CONFIRM THE CONTROLS WORK

### Management of Change (MOC) in Operations

Confirm the controls work by:

- Management of change (MOC)
  - Monitoring effectiveness
  - Informing, instructing and training
  - Keeping records
  - Operations maintenance
- Have you confirmed that these controls work?
- Have you confirmed with implementers that the controls are working and effective?
- Have you used an MOC, to document any operational changes?
- Have you continued informing, instructing and training on the chemicals and the controls for those chemicals?
- Have you used formal training? On-the-job training? Both?
- Have you validated competencies onsite? Over time?
- Have you kept assessment reports regarding decisions about risk and the controls selected?
- Have you ensured regular maintenance is performed on controls?