

## **ATTACHMENT 24: Example Design Specifications and Drawings**

The following is an example listing of specifications and drawings that may be included for a detailed design of an ISCO treatment system using a direct injection approach.

- **General**
  - Cover sheet
  - Drawing list
- **Civil**
  - Layout Plan (site boundary, access routes, locations of wells, equipment, storage areas, construction lay-down areas)
  - Well Construction Diagrams
  - Miscellaneous Civil Details (well vaults, trenches, concrete pads, fencing, bollards)
- **Process & Instrumentation**
  - Process Flow Diagram (oxidant and activator mixing, conveyance, and delivery equipment)
  - Piping and Instrumentation Diagram (oxidant and activator mixing, conveyance, and delivery equipment)
- **Mechanical**
  - General Arrangement Plans (control building; mixing, conveyance, and delivery equipment)
  - Well Vault Layouts and Sections
  - Storage Tank Details
  - Miscellaneous Mechanical Details (pipes, supports, spill containment)
- **Electrical**
  - Single Line Diagram
  - Power Plan and Schedules

The following is an example listing of specifications and drawings that may be included for a detailed design of an ISCO treatment system using a well recirculation approach.

- **General**
  - Cover sheet
  - Drawing list
- **Civil**
  - Layout Plan (site boundary, access routes, locations of wells, piping, equipment, storage areas, construction lay-down areas)
  - Well Construction Diagrams
  - Miscellaneous Civil Details (well vaults, trenches, concrete pads, fencing, bollards)
- **Architectural**
  - Plans and Elevations (control building)
- **Structural**
  - Foundation Plans (control building, storage tanks, unloading stations)
- **Process & Instrumentation**
  - Process Flow Diagram (oxidant and activator mixing, conveyance, and delivery equipment)
  - Piping and Instrumentation Diagram (oxidant and activator mixing, conveyance, and delivery equipment)

- **Mechanical**
  - General Arrangement Plans (control building; mixing, conveyance, and delivery equipment)
  - Well Vault Layouts and Sections
  - Storage Tank Details
  - Isometric Piping Detail
  - Miscellaneous Mechanical Details (pipes, supports, spill containment)
- **Electrical**
  - Buried Conduit Network
  - Single Line Diagram
  - Building Power Plan and Schedules
  - Building Lighting Plan
  - PLC Interconnect Diagrams