

The following provides examples of the components in a 30%, 50%, 90%, and 100% Design Documents.

30% Or Basis of Design Components

Introduction

- Discussion of purpose/intent of document
- Discussion of report organization
- Discussion of project organization structure /roles and responsibilities
- Discussion of general site history
- Discussion of other components of overall remediation that will be submitted separately
- Discussion of document structure and separation if more than one design process is included in the document
- Discussion of design process, such as:
 - 30% Design Components
 - 50% Design Components
 - 90% Design Components
 - 100% Design Components

Summary of ROD

- Description of remedies outlined in the Record of Decision (ROD)

Basis of Design

- Discussion of work to be undertaken
- Discussion of permitting and regulatory requirements
- Summary of previous investigations and results; examples include but not limited to:
 - Soil contamination and soil vapor data
 - Groundwater data
 - Vapor intrusion data and sub-slab vapor monitoring results
 - Previous history of SVE system operations
 - Previous pilot testing monitoring results
- Discussion of design considerations, including:
 - Existing conditions (structures, utilities, systems, etc.; with figures)
 - Property ownership
 - Subsurface conditions
 - Surface conditions
 - Analysis of data and identification of data gaps
 - Planned pilot testing and/or treatability testing and significance to design considerations
 - Design assumptions

- Discussion of media/areas to be remediated
- Discussion of COCs for each media
- Discussion of cleanup levels/remedial action objectives/performance criteria
- Discussion of estimated extent of system/describe target
- Discussion of design approach
- Discussion of evaluation of treatment methods

Additional Investigation

- Discussion of data collection needed to fill data gaps, if needed

50% Design Components

Addresses DEQ comments on the 30% Design and may include:

- Discussion of investigation results, including results and analysis of data
- Pilot test work plan (including a description of the pilot test methods and procedure for data collection)
- Discussion of pilot test well construction details (e.g., well locations, pilot test equipment details)
- Discussion of all required treatment during pilot testing (e.g. off gasses, waste water)
- Discussion of all required permitting requirements
- Discussion of how data from pilot test will be used to finalize system design
- Discussion of preliminary system layout
- Discussion of preliminary system construction details
- Discussion of calculations to be used for system design
- List of construction specification to be provided in the 90% Design
- Preliminary operations and maintenance (O&M) and performance monitoring plan
- Preliminary cost estimates
- Preliminary schedule

90% Design Components

Addresses DEQ comments on the 50% Design and may include:

- Discussion of pilot test results and analysis of data
- Discussion of how data from pilot test will be used to finalize system design
- Presentation of final system calculations for system design
- Final system construction drawings
- Final system plans and specifications
- Permits or permit applications

- Final O&M and performance monitoring plan
- Final cost estimates
- Final schedule

100% Design Components

- Addresses DEQ comments on the 90% Design submittal
- Once DEQ approves, implementation begins