

BMRR REGULATION BRANCH

GUIDANCE DOCUMENT

As-Built and Quality Assurance/Quality Control Submittals

Introduction

“As-built drawings” are engineering drawings which reflect all changes made from original engineering drawings during the construction of a facility so that a representation of the facility as constructed is portrayed. As-Built drawings are often referred to as “Construction Record Drawings” or “Record of Construction Drawings”. Current BMRR policy requires all As-Built drawing be prepared, stamped, signed, and dated by a Nevada-registered Professional Engineer (Nevada PE).

“Quality Assurance/Quality Control” or QA/QC is the combination of quality assurance, the process or set of processes used to measure and assure the quality of a product or service, and quality control, the process of ensuring products and services meet design expectations. Quality assurance is process oriented and focuses on defect prevention, while quality control is product oriented and focuses on defect identification.

“Modify materially” means to make a change in the design or location of a process component, or the characteristics of the waste stream which significantly alters the potential to degrade the waters of the State; or a significant change in the environmental monitoring systems which results in a reduction in the effectiveness of that monitoring system. To modify materially does not include changes necessitated during construction to suit field conditions, or changes which do not affect point sources.

Pursuant to Nevada Administrative Code (NAC) 445A.427, within 30 days after completing construction on a new process component or materially modifying an existing process component, the holder of the permit shall submit to BMRR:

- As-built drawings of the process components, containment, and piping;*
- A summary of the quality control procedures which were carried out during construction; and*
- The final operating plans required by NAC 445A.398 which have been revised to reflect modifications made during construction.*

Pursuant to NAC 445A.439, a quality assurance and quality control program must be developed and carried out for the construction of all liner systems. A summary of the quality control data must be submitted to BMRR with the as-built drawings.

Any significant deviation to a BMRR-approved design and/or specifications identified during construction by the Permittee (or their engineering consultant), requiring additional engineering review by BMRR due to the complexity of the change and/or unforeseen circumstances encountered during construction will require the submittal of an Engineering Design Change (EDC) and fee for BMRR review and approval.

Submittal Requirements

At a minimum, As-Built reports and Quality Assurance/Quality Control documentation submitted to BMRR must contain the following items:

- *Introduction and project description*
- *Photographs*
- *Parties involved and their assigned responsibilities*
- *Deviations from BMRR-approved designs*
- *Daily construction activity logs or field logs describing work performed, problems encountered, weather conditions, etc.*
- *Record documents including drawings, designs, and maps*
- *Discussion of commissioning procedures*
- *Construction Schedule*
- *Earthworks specifications, testing and test methods, testing frequency, and results*
- *Soil placement specifications, testing and test methods, testing frequency, and results*
- *Concrete specifications, placement, testing and test methods, testing frequency, and results*
- *Pipe and liner specifications, placement, testing and test methods (including welding), testing frequency, and results*

Electronic Submittals

With the Governor's "Go Paperless" initiative, BMRR is slowly transitioning into an all-electronic format for submittals. Permittees are being encouraged to submit both hard copy and electronic versions of the As-Built and QA/QC documentation.