

## REGULATION 22 SITE LOCATION AND DESIGN APPROVAL REGULATIONS FOR DOMESTIC WASTEWATER TREATMENT WORKS



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January 28, 2010

## Presentation Overall

- Not reviewing detailed requirements for Reg 22 or Policy 96-1
  - The specifics are included in both of these documents.
  - Updated Reg 22 Guidance is in the works now...
- Focus on giving an overview of the processes for site location applications and design review submittals, clarifications, items of note.
- Review of recent revisions to Reg 22 at the end.



## REFERENCE DOCUMENTS

- Colorado Water Quality Control Act (Title 25, Article 8, C.R.S.)
- Regulation No. 22 (Site Application/Design Review)
- Regulation No. 22 Guidance Document
- Regulation No. 22 Policies
- Policy 96-1 (Design Criteria)



## Reg 22 Guidance and Policies

- Guidance Document
  - Purpose to provide guidance on Division's expectations for submittals and help with internal consistency in reviewing submittals.
  - Currently under revision now to address September 30, 2009 changes. Final stakeholder meeting(s) planned for April 2010 (date and time TBD).
  - Will address stakeholder comments/issues that were obtained from October –December 2009.
- Policies
  - Designed to aid in the interpretation and implementation of Regulation No. 22
  - Some will be incorporated into revised Guidance; others will be abandoned.



## Authority and Requirements

- Water Quality Control Act, 25-8-702
  - "No person shall commence the construction of any domestic wastewater treatment works or the enlargement of the capacity of an existing domestic wastewater treatment works, unless the site location and the design for the construction or expansion have been approved by the division."

## Domestic Wastewater Treatment Works (DWWTW)

- "...a system or facility for treating, neutralizing, stabilizing, or disposing of domestic wastewater which system or facility has a designed capacity to receive two thousand gallons of domestic wastewater per day or more."
- Includes pumping stations and outfall sewers
- Does not include industrial wastewater treatment plants

## Regulation No. 22 (5 CCR 1002-22)

### Historical Perspective

- Pre – 1981
  - All Approval decisions deliberated and issued by WQCC with WQCD advisement
- 1981
  - Regulation adopted giving Division decision making authority and Commission only to act on appeal of decisions. “One size fits all”
- Revisions in 1996, 1997. Became Reg 22 in 1997.
- Major Revisions in 1998, 2004 and 2009

## Regulation 22

- Applies to construction of domestic wastewater treatment works (including wastewater treatment plants, IDSD systems, lift stations and interceptor sewers with an internal diameter  $\geq$  24 in.) with a design capacity of 2,000 gpd or greater, as well as certain facilities that produce reclaimed water.
- Intended to advise applicants (for site approvals) of the proper procedures and minimum information necessary for site application submittals.

## 25-8-702(2) C.R.S. - evaluating the suitability of a proposed site location

- Consider local long-range comprehensive plan and any approved water quality management plan for the area
- Confirm DWWTW can be managed to minimize potential adverse impact on water quality
- Encourage consolidation whenever feasible considering water conservation, water rights utilization, stream flow, water quality, and economics.

## The Site Location Application (SA) Process



1. Applicant or Applicant's Engineer submits a request for fee assignment (via email) from the ES Unit Manager.
2. Applicant receives invoices from the Division.
  - Invoices will be issued for both SA and DR
3. Applicant remits Site Location Application Fee w/invoice
4. Applicant submits Complete Site Location Application Package to the Division (to the attention of the ES Unit Manager). Two (2) copies are requested. One copy needs to have original signatures on the form.
  - The engineering report needs to be stamped and signed per DORA regulations.
  - PELs need to be included where required (discussed on subsequent slide)

## The SA Process Continued...



5. Submittal is logged into the Division's tracking database and is returned to the Unit Manager.
6. Unit Manager assigns the project to a review engineer.
7. Review engineer begins work on the project.
8. If the submittal does not fully meet the requirements of Reg 22, an issues letter is prepared and issued and the project review is placed on hold.
9. Once all issues are adequately addressed, the Unit Manager and review engineer prepare the site location approval letter and supporting documentation for the review and signature by the ES Manager (me).
10. I do a final review of the information, sign the letter and the letter is issued by ES Denver Admin staff.
11. The design must be consistent with the SA approval. The Permits Section also uses the approved hydraulic and organic capacities (per the SA approval) in the discharge permit (for DWWTW).

## Preliminary Effluent Limitations (PELs)

- New DWWTW and DWWTW with capacity changes require current PELs. Other DWWTW modifications may require PELs. Be sure to contact the Permits Section to find out about PELs and obtain the PELs prior to completing work on the SA submittal. For projects where PELs are required, the submittal is incomplete without the PELs included.
- Developed in the Permits Section of WQCD.
- Fee is required.
- Need capacity & discharge point info
- Impacted by changes in:
  - water quality standards
  - stream flows
  - ambient water quality
  - 18 month “shelf life”

## Items of Note re: the SA Process



- ❑ The Division is the final, decision-making entity, but is not the only agency involved in the review of site location applications.
  - ❑ Prior to submitting to the Division, the site location application package needs to have been submitted to the local authorities and to the 208 planning agency (if one exists).
  - ❑ These other agencies may have other requirements and time lines that may impact timing of SA processing. Contact these agencies in advance of the submittal to find out about the requirements.
- ❑ The Division cannot take action on a site location application until the designated review period (varies w/type of SA) has passed or comments have been received from the local authorities and 208 planning agency (if review period is not over).
  - ❑ Because these comments are considered during the review, work on the SA submittal review will not commence until the comment period has passed or comments have been received.

## SA Items of Note Continued...

- ❑ The Division cannot commence review work on the SA until the fee has been remitted and the complete submittal has been received. Reg 22 has specific requirements for what needs to be in the submittals.
  - ❑ Be sure that the correct form is used and that the associated checklist is included.
- ❑ The Division does not issue concurrent site location and design approvals for any project.
  - ❑ If the design submittal will provide additional clarification to inform the SA review process, it can be submitted prior to site location approval issuance. However, formal review/comment/approval will not take place until the design review fee is remitted and site location approval has been issued.
- ❑ The Division does not issue verbal approvals. All approvals are issued in writing on CDPHE letterhead.
- ❑ Site Location Approval is NOT approval for construction. Design approval is required prior to commencement of construction.

## SA ENGINEERING REPORT CONTENT

- ❑ Differs between DWWTW and LS or interceptors
- ❑ DWWTW –specific requirements in 22.4(1)(b), 22.5(2), 22.8(2)(c)(i). For 22.8 although not specifically spelled out (due to wide variations in projects), need adequate engineering report to address proposed changes.
- ❑ LS and Interceptors – specific requirements in 22.7(1)

## The Design Review Process



1. Applicant remits Design Review Fee w/Invoice
2. Two step process for DWWTW (new, expansions, modifications)
  - ❑ Process Design Report (incl. 60% drawings...)
  - ❑ Final Design (Detailed Plans and Specifications)
3. One step process for Lift Stations and Interceptors
  - ❑ Basis of Design Engineering Report and Project Plans and Specifications
4. Applicant submits complete design package (step 1 for DWWTW) to the Division (to the attention of the ES Unit Manager). Two (2) copies are requested.
5. Submittal is logged into the Division's tracking database and is returned to the Unit Manager.
6. Unit Manager assigns the project to a review engineer.
7. Review engineer begins work on the project.
8. If the submittal does not meet the requirements of Policy 96-1, an issues letter is prepared and issued by the review engineer and the review work is placed on hold.

## The Design Review Process Continued

9. Once PDR issues are fully addressed for DWWTW, PDR approval is issued. The review engineer signs PDR approval letters.
10. For lift stations and interceptors, once all issues are fully addressed, final approval is issued. The review engineer signs design approval letters.
11. For DWWTW, Final Design is not 'formally' reviewed until PDR approval is issued. Typically, we receive the Final Design submittal after PDR approval is issued. This is most appropriate as Final Design needs to address all issues identified during PDR review.
12. For DWWTW, if there are issues with the Final Design submittal (inconsistent with approved PDR, etc.), an issues letter is prepared and sent and project review is placed on hold.
13. Approval of the Final Design is issued after all issues are resolved. The review engineer signs design approval letters.



## Items of Note re: Design Review Process



- ❑ DORA requirements for P.E. signing and stamping engineering reports and drawings must be met. This includes technical documentation and drawings submitted in response to issues letters.
- ❑ Ensure that all submittals fully address design criteria requirements. Policy 96-1 has clear and specific requirements for what needs to be included in the PDR, final design (DWWTW), and basis of design and project plans and specifications (lift stations and interceptors). This information is found in the first few pages of Policy 96-1.
- ❑ Any item indicated by 'shall' is required unless a variance is requested and granted. Items where 'should' or 'may' is indicated need to include clear technical justification if not met.
- ❑ All variance requests need to be clearly identified and substantiated in the submittal.

## DR Items of Note Continued...



- ❑ The design must be consistent with the site location approval. This means that approved organic and hydraulic capacities are the same, any SA conditions for design are met, etc.
- ❑ Do not wait until the design submittal to request New Technology Approval. The earlier, the better. New Technology Approvals are not all-encompassing and are specific to conditions of initial and subsequent conditions and to the proposed site.
- ❑ Talk with the district engineer (DE) for the county in which the project is located as needed to clarify project information. (before and after submittals are made) For complex questions or issues, contact the Unit Manager.
- ❑ Design-builds are handled as phased project approvals. Initial PDR submittals need to clearly define each 'phase' and associated final design submittals need to align with the specified phases.



## Pilot Studies and Full-Scale Demonstration Requests

- ❑ Formal process now exists in Reg 22.
- ❑ Written request and Pilot Test Plan are required.
- ❑ Written Division authorization of pilot/demonstration and approval of the Pilot Test Plan are required prior to installation/commencement of construction for pilot/demonstration.
- ❑ Limited to 1 year max default (Division can extend to 2 years).
- ❑ Final Report required to be submitted to Division.
- ❑ Site Location and Design Approval are required prior to permanent utilization of the pilot-tested/demonstrated technology.
- ❑ There is currently no fee associated with these requests.

## 'Streamlined Final Design Approval'



- ❑ Addition of a 'streamlined design review' process for WWTFs. Requires SA and PDR approvals, but allows 'certification' for approval of final design (plans and specifications) as long as specific requirements are met.
  - ❑ Final Design Certification will still require submission of BOTH site location and design review fees.
  - ❑ Very specific requirements associated with this... delineated in the Regulation.
  - ❑ Final Design Certification is not available for lift station or interceptor projects.
  - ❑ Final Design Certification is not available for projects with new technologies, SRF/ARRA/Stag funded projects.
  - ❑ Division discretion if Final Design Certification is available on projects requesting design variances.



## In-Kind Replacement

- ❑ Definition of in-kind replacement and the associated addition of Section 22.10.
- ❑ For projects that owner believes meets the definition of in-kind replacement:
  - ❑ Owner must notify Division, in writing, within 15 working days after placing the replacement into service. (Recommend contacting Division prior to doing the work....)
  - ❑ Division has 15 working days to then notify owner that the replacement does not meet the (in-kind replacement) definition and that site location and design review are required. Owner must then obtain site location and design review for the replacement.

## Final Notes on SA and Design Review Submittals



- ❑ If the Division sends an issues letter regarding a SA or DR submittal, the sooner that the (adequate) response is received, the sooner that the review work can resume and move toward approval.
- ❑ If the project is proposing a New Technology (not currently included in Policy 96-1), get the New Technology documentation submitted prior to submitting the SA package.
- ❑ Review goal for SA = 60 days and DR (DWWTW = 75 days, PDR = 45 days, final design = 30 days. Lift Stations and Interceptors = 75 days)
  - ❑ Review goals only address time in the 'Division's court'. Time elapsing while we're awaiting a response to an issues letter is not included.
- ❑ For SRF and Stag projects, design review and approval is required (funding requirement) even if site location and design approval are NOT required per the statute and Regulation 22 (i.e. Interceptor < 24in.). There is currently no fee associated with these types of design reviews.



## 2009 Revisions



- ❑ 2008-2009 Stakeholder Process
- ❑ Rulemaking hearing July 2009. Revisions were effective September 30, 2009.
- ❑ Recent Revisions included MANY changes – I will not be covering all of them here.
  - ❑ Definition of in-kind replacement and the associated addition of Section 22.10.
  - ❑ Site location approvals will now expire in 18 months, unless otherwise specified by the Division.

## 2009 Revisions Continued..

- Clarification regarding consolidation analysis - consider feasibility of consolidation with consideration for issues as water conservation, water rights utilization, stream flow, water quality, or economics.
- PELs for metals, organic and inorganic parameters (other than TRC) – can be indicated in engineering report that PEL will be met via means that do not include treatment (pretreatment program, etc.).
- Formal geotech report submittal requirement has been modified and now can 'spill over' into design review.
- Emergency Operations Plan – now required to demonstrate owner's ability to operate and maintain facility (WWTFs, L/Ss).

## 2009 Revisions....

- Formal agreement is now required where capacity in a facility is shared between two or more entities.
- Increased requirements for lift stations – demonstrated means for controlling loadings, etc.
- Addition of a formal process for authorizing pilot studies and full-scale (technology) demonstrations.
- WWTF Expansion section has been modified to specifically address capacity reductions as well as expansions.
- 60-day review goal is now included in the Reg.

## 2009 Revisions....

- Addition of a 'streamlined design review' process for WWTFs. Requires SA and PDR approvals, but allows 'certification' for approval of final design (plans and specifications) as long as specific requirements are met.
- More requirements associated with SAs that indicate the provision of service to new or expanded service areas (must demonstrate consistency with WQ Management Plan)



Questions?

