

Date: July 14, 2004

To: Office of Drinking Water Engineering Staff

Through: Gerald Peaks, P.E., Director
Office of Drinking Water

From: Deputy Field Director Task Team
Office of Drinking Water

Subject: Permits & Project Review - Construction Permits and Processing of Reports,
Plans and Specifications

Delete: Working Memos 749, 787, 788

Reference: Working Memos Nos. 786 (Chlorine Disinfection and Monitoring), 793 (PT Log),
795 (PE Seal), 865 (Capacity Evaluation)

Summary Statement

This memo is a revision and consolidation of previous working memos on the processing of reports, plans and specifications, and issuing construction permits.

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1. Project Evaluation Process

A. Introduction

The project evaluation process consists of five elements:

- 1- Application/Notification of Intent,
- 2- Preliminary Engineering Conference,
- 3- Comprehensive Business Plan (if applicable),
- 4- Preliminary Engineering Report, and
- 5- Final Plans and Specifications.

These stages are formal tools to assist owners and their engineers in identifying and solving problems as early in the project development process as possible.

Maintenance and replacement-in-kind items do not generally require submission of design documents for approval.

The construction of a chemistry or biological laboratory at a waterworks requires formal submission of plans and specifications. However, the Office of Drinking Water does not issue a Construction Permit if the laboratory is a separate project. When a waterworks owner plans to establish a laboratory performing work that requires EPA or State certification, the Laboratory Certification Officer at DCLS must be contacted by the Field Office. When the laboratory is included in the construction documents for a new / upgraded / modified waterworks, review this portion of the project for conformance with 12 VAC 5-590-760 of the *Waterworks Regulations*. Advise the owner and engineer to seek approval from DCLS for the laboratory design.

B. Project Tracking

The automated Project Tracking Log (PT Log) shall be used to account for all activities related to the handling of reports, plans and specifications. Projects shall be entered into the system immediately upon receipt of documents, and updated as actions are taken. DEQ permit applications and SWDA reports are also tracked in PT Log, but are not discussed in this memo. Further information on PT Log is given in Working Memo 793.

C. Construction Permit Application

The *Code of Virginia* § 32.1-172.B. requires that an application be submitted to VDH prior to the establishment, construction, or operation of a waterworks. The application form is to be submitted by the owner to initiate the project evaluation process. The owner or his engineer must sign the application. Special emphasis should be placed on identifying the exact legal name of the owner. A copy is given in Appendix I.

D. Preliminary Engineering Conference (PEC)

The PEC provides for an exchange of information between all parties. Discussions regarding existing system problems, technical design criteria, possible solutions, scope of work and financial requirements will help the owner to determine if the project is feasible and economically viable. The need for a Comprehensive Business Plan should be determined during the PEC and receive concurrence of the Field Director.

If the project is located in a Groundwater Management Area and includes groundwater withdrawal of 300,000 gal/month or more, then the owner should be advised to contact

the Department of Environmental Quality (DEQ) about the need to obtain a Groundwater Withdrawal Permit.

PECs are encouraged for all projects and may be required for projects involving treatment processes or complex hydraulics. Preliminary thoughts about possible design exceptions should be formulated at this stage. A telephone conference may be sufficient for simple projects, such as water line extensions or chemical solution feed systems.

E. Comprehensive Business Plan (CBP)

The majority of projects submitted for review will not require the owner to submit a CBP. Refer to the latest Working Memo on CBP to determine applicability.

F. Preliminary Engineering Report (PER)

A PER is normally required for all projects involving treatment processes and complex hydraulics. Two copies of the PER shall be submitted. Upon approval, both copies shall be stamped approved; one copy returned to the owner, the other retained in the Field Office. (A copy of the approved report will no longer be filed in the Central Office.) An example of an approval letter for a PER is given in Appendix B.1.

The Field Director has the discretion of waiving the requirement for a PER. This needs to be justified and documented.

Refer to the *Waterworks Regulations* for information required in the report. A PER that includes innovative/alternative technology or design exceptions to the *Waterworks Regulations* shall be coordinated with the Central Office. A written Design Exception Request should be made and processed, prior to approval of the PER.

G. Final Plans and Specifications

1. Submittals

Three sets of construction plans, specifications, addenda and change orders are required from the engineer. One approved set will be returned to the owner with the construction permit. The second set will be retained in the Field Office. The third set will be sent to the Central Office.

2. Scope and Detail Review

A Scope and Detail (S&D) review is performed for all plans and specifications submitted for review. A S&D is not required for Engineering Reports, Addenda or Change Orders. The form for the S&D review is given in Appendix A. The S&D review must be completed within 10 working days of receipt of the project.

If a "NO" response is given for any of the items listed on the S&D checklist, the project becomes a technical "Return", and the PT Log is updated with this information. A return letter (see Appendix B.2) is sent to the design engineer, with a copy to the project owner and funding agency, if appropriate, within 2 working days of the S&D review. Project documents may be included with the return letter, or held for later review when required submittals are received.

The field office may use discretion in returning plans or proceeding with review and including scope and detail deficiencies in the first comment letter (such as a missing application). This needs to be justified and documented.

3. Review Comments

The *Waterworks Regulations* guide the review process. All reviews shall include neat detailed notes and relevant calculations. All engineering calculations critical to the process shall be checked, including critical volumes, detention times, pump selection calculations and hydraulics.

Upon completion of the review, comments on the design must be sent in writing, with a copy to the owner and funding agency, if identified. The comments should include a request for a response within 30 days. *Comments should be clearly identified as requirements or recommendations.* An example of a comment letter is given in Appendix B.3. Less significant comments or suggestions may be made verbally or by e-mail. If we are unable to obtain the engineer's response within the 30 days requested, then a reminder letter should be sent or a phone call made and documented.

4. Source Requirements

No approvals will be made for water line extensions, etc. unless there is an existing source, or a source is proposed with the project. Prepare a letter to the owner stating that the plans are technically adequate (if true) but NOT approved, and that approval is contingent upon provision of an adequate water source.

5. Project Returns

If the owner's engineer does not address review comments within the specified time frame, the District Engineer must follow-up with telephone requests, e-mails or reminder letters. If no response is received within 10 days of one or two contacts, the documents may be returned. Use the Project Return letter format given in Appendix B.6.

2. Approvals

A. Permit and Engineering Description

Plans CANNOT BE APPROVED WITH CONDITIONS. They must be in compliance with the *Regulations*, or have an approved Design Exception.

A construction permit number is assigned in the Field Office. The construction permit number contains six digits. The first digit is the assigned Field Office number (1-Abingdon, 2-Lexington, 3-Southeast, 4-East Central, 5-Danville, 6-Culpeper). The next three numbers are sequential numbers, with each new calendar year beginning a new sequence, starting at 001. The last two digits represent the calendar year in which the permit is issued.

A Construction Permit is written in accordance with the format given in Appendix D. It may be accompanied by an Engineering Description Sheet, which is given in Appendix E. See Working Memo 865 for guidance with capacity determination of individual components of the waterworks.

Issuance and expiration dates are written on the permit at the same time that the plans and specifications are signed and dated, by the Director approving the documents, to assure consistency.

Projects that require a separate Engineering Description Sheet include the following:

1. Projects resulting in changes to the waterworks operation permit capacity
2. Projects approved by the Central Office
3. Projects that require a design capacity evaluation of more than one process or component.

Projects that are approved in the Field Office and do not require a separate Engineering Description Sheet include the following:

1. Waterline extensions and transmission mains
2. Simple projects that can be described briefly in the permit, such as solution-type chemical feed systems and filters without backwash features.

B. Projects Approved by Central Office

Projects to be approved by the Office Director shall be packaged and sent to the Central Office. The package shall include:

1. Central Office Approval Checklist (see Appendix F)
2. Construction Permit (leave dates blank for Central Office to complete)
3. Engineering Description Sheet
4. Two copies of plans, specifications, addenda and change orders.
5. Copies of design notes and calculations.

The construction documents (plans, specifications, addenda and change orders), once approved by the Central Office, will be stamped approved and mailed directly to the waterworks owner with the final construction permit. The Central Office will also mail copies of the permit to all parties listed, with addressed envelopes provided by the Field Office. The field office will retain one copy of the construction documents with the permit number and issuance date noted on the documents.

C. Projects Approved by Field Office

The following types of projects will generally be approved at the field office:

1. Water line extensions
2. Raw water lines and transmission mains not crossing local government jurisdictional boundaries. Contact the Central Office to determine procedures for projects that do cross boundaries.
3. Distribution system booster pump stations.
4. Distribution system storage tanks with an individual nominal volume ≤ 1 MG
5. A simple groundwater system consisting of wells, transfer booster pumps, hydropneumatic tanks (including bladder tanks), and/or gravity storage tanks.
6. Metering pump and solution tank – type treatment systems, such as sodium hypochlorite for disinfection, phosphate for sequestration or corrosion control.
7. Cation exchange water softening.
8. Iron and Manganese removal filters.
9. Non-technical change orders and addenda, including those for water treatment plants originally approved in the Central Office.
10. Standard utility specifications. (Local review programs / General Permits shall be approved by the Central Office.)
11. Preliminary Engineering Reports (if a Design Exception request is included, Central Office approval is required. If the design exception was granted prior to

- submission of the PER, or if the design exception is a common one that can be granted by the field office, then the field office may approve the PER.)
12. Pilot Plant study reports. Discuss results and conclusions with Central Office Technical Services and obtain concurrence prior to approval.
 13. Evaluation reports of full-scale technology (demonstration studies). Discuss results and conclusions with Central Office Technical Services and obtain concurrence prior to approval.
 14. Record drawings.

Documents shall be stamped with an approval stamp containing the following information:

Virginia Department of Health Office of Drinking Water Approved by _____ Field Director Date _____
--

The Field Office shall copy the Central Office on the following:

1. Field Office Approval Checklist (see Appendix G)
2. Construction Permit
3. Engineering Description Sheet, if required
4. Construction plans, specification, addenda and change orders, with signed & dated approval stamp
5. Waterworks Application
6. Design Exception, if issued

3. Design Exceptions

Design Exceptions to the *Waterworks Regulations* fall into two categories and must be documented as follows:

- Central Office approval - A Design Exception Request memorandum from the Field Office, for the Office Director's approval signature, is required. Refer to Appendix C for the memo. The request shall be submitted at the earliest possible time in the project review process (preferably at the PEC or PER stage), to allow the owner's engineer sufficient time to incorporate the VDH decision into the final design documents.
- Field Office approval - A Common Design Exception shall be documented in a Design Exception Request memorandum with the Field Director's approval signature (refer to Appendix C for the memo, and modify the names accordingly). A copy of the design exceptions memo shall be included with the documents forwarded to the Central Office for all projects.

An EXCEL database of ODW Design Exceptions granted by the Central Office Director will be maintained by the Central Office, and will be available on the shared network drive under "DFD Folder/Design Exceptions.xls". The database will clearly indicate which exceptions are eligible for field office approval.

4. Record Drawings (As-Built Plans)

Record drawings (as-built plans) are often received, but are generally not required for projects that have a Construction Permit, unless the actual construction/field conditions were substantially different from the approved plans. In this case, record drawings must

accompany a fully executed change order. Record drawings not sealed in accordance with WM 795 will not be approved.

If construction was in substantial compliance with the approved project (an engineer's letter of substantial completion was obtained), no further action is necessary. Otherwise, review the project and modify the approval letter according to the circumstances (see Appendix B.4).

Projects that were constructed prior to formal approval due to emergency conditions should be reviewed, and the approval letter modified accordingly (see Appendix B.4).

As-built plans for projects constructed illegally with no prior approvals should be reviewed as though they were for a new project. This may result in significant comments that necessitate field modifications or reconstruction. If major reconstruction is necessary, a construction permit may be appropriate. Otherwise, once an approval is possible, do NOT issue a construction permit. A new/revised Operation Permit will be required.

The Field Office shall process all record drawings for projects that would have been approved in the Field Office, as listed previously.

5. Addenda and Change Orders

Addenda are modifications to the construction documents after the notice to bidders is issued, but before the contract is awarded. Change Orders are modifications to the documents made after the project is awarded. If these items are received prior to project approval, process them with the entire package. If received after project approval, process them as a separate project. If the changes are major, a new Construction Permit may be issued. Otherwise issue the approval without another permit and reference the original one.

Change Orders shall be fully executed (signed by the owner, design engineer and contractor) prior to review and approval by VDH.

The Field Office shall approve non-technical change orders and addenda for all projects. Technical change orders and addenda for projects originally approved in the Field Office shall also be approved in the Field Office. Otherwise it shall be approved by the Central Office. Refer to Appendix B.5 for the letter format.

6. Specific Evaluation Topics

A. Surface Water Treatment and Withdrawal

The maximum withdrawal from a surface water source may be restricted through permit by another government agency, including the Virginia Department of Environmental Quality (DEQ), US Army Corps of Engineers (COE), and Virginia Marine Resources Commission (VMRC). Specific requirements may include: maximum daily withdrawal rate, maximum annual withdrawal rate, maximum screen opening size, maximum screen face intake velocity, and Instream Flow Rules, such as minimum instream flow ("flowby") for specific periods of the year. Additionally, the source may be included in a Surface Water Management Area, which is designated by State law. This designation includes limits on the water withdrawal rate and volume during certain times and conditions. These factors will need to be understood when evaluating the proposed raw water intake, treatment plant facilities and hydraulic capacity. These permits may be cited in

the Engineering Description Sheet, and may in some instances limit the permitted capacity of the waterworks.

B. Groundwater Withdrawal Permits (in Groundwater Management Areas)

At this time there are two Groundwater Management Areas designated by DEQ: Eastern Virginia, and the Eastern Shore. Water users that withdraw 300,000 gal/month or more in a Groundwater Management Area must obtain a Groundwater Withdrawal Permit from DEQ. However, the issuance of a construction permit may proceed without a DEQ permit. The DEQ permit (whether issued or not) must be recognized in the Waterworks Construction Permit. See Appendices D for specific language.

It should be noted that the DEQ permit application requires a justification for the amount of withdrawal requested, and the application instructions state that: "Justification of need based on Health Department wastewater (sic) estimates of 400 gallons per day per ERC will NOT be accepted."

The pump setting and the maximum monthly and annual groundwater withdrawal limits are included in the Groundwater Withdrawal Permit.

C. Wastewater Disposal

Wastewater discharged by the water treatment plant MAY require a VPDES permit from DEQ. Contact the DEQ Regional Office, by letter, to notify them of the proposed discharge at the earliest possible time. Refer to Appendix B.7 for the format of this letter.

D. Internal Plant Recycle

The Filter Backwash Recycling Rule applies to all surface water or GUDISW systems that use conventional filtration or direct filtration and that recycle spent filter backwash water, thickener supernatant, or other dewatering process flows. VDH strongly discourages the recycle of process waste flows within the treatment plant. When recycling is proposed, recycle flows shall be returned prior to the point of primary coagulant addition, and shall receive full treatment through all of the plant processes. Recycle streams shall be controlled to prevent a hydraulic surge or plant capacity exceedance. The rate of recycle return should be no greater than 10 % of the plant influent (actual flow). Additional settling of the recycle stream or recycle return to a presedimentation basin is recommended, as a minimum, to obtain a more consistent influent water quality to the plant. If alternative return locations are proposed, supporting justification from the engineer is required, and the Central Office must approve the alternate location.

Lagoon water receiving flow from plant floor drains, pump drains, etc. shall NOT be returned to the water treatment plant process flow stream, or upstream of a public waterworks' intake.

E. Distribution Systems

No approvals will be made for a distribution system unless an adequate **source** exists or is proposed with it.

Design fire flow (rate and duration) shall be documented by the project engineer indicating that the appropriate officials (Fire Marshall, local government building official) were consulted to establish the design fire flow.

The *Code of Virginia* exempts projects that consist of “the extension of water distribution piping having a diameter of 8 inches or less and serving less than fifteen equivalent residential connections” from obtaining a Construction Permit. The 15 equivalent residential connections are the determining factor, NOT the fire flow. The exception was not intended to allow owners to phase construction of large waterline extension projects, in order to circumvent the permit requirement. A licensed engineer must design exempt projects, as stipulated in the Code of Virginia. Enforcement of the licensed engineer requirements is the responsibility of the Department of Professional and Occupational Regulation (DPOR).

The owner may obtain VDH approval for Standard Specifications and Plan Details. Thereafter, only submission of the plans is required, provided that they reference the approved standards and details.

F. Capacity Evaluation

The Engineering Description Sheet, when used, must contain an evaluation of the design capacity of the project only, and wording in the final paragraph that indicates to the owner how it will effect the capacity of the waterworks’ Operation Permit.

G. AWWA Disinfection Standards

Engineering specifications for disinfection of storage tanks and waterlines may reference the applicable AWWA standards or the *Waterworks Regulations*. Since the AWWA Standards are copyrighted, duplication of the AWWA Standards in the specifications is in violation of the copyright, and cannot be required. Refer to Working Memo 786 for additional information.

7. New or Nonconventional Methods, Processes, Equipment

Projects involving the evaluation and approval of new or nonconventional methods, processes and equipment shall follow the criteria in § 12 VAC5-590-290 of the *Waterworks Regulations*. All such proposals shall be coordinated through the Central Office. An ACCESS database of Innovative/Alternative Technology shall be maintained by the Central Office and made available on the shared network drive for all technical staff under “DFD Folder/InnovTech.mdb”. The information needed for the database must be included with the documentation sent to the Central Office for project approval.

8. Specific Owner Procedures

A. VA Department of Transportation

1. Well Dedication Document – Use the Well Dedication Document developed by the Attorney General’s Office, given in Appendix H.
2. Direct all correspondence to Highway and Resident Engineers, who will be responsible for these projects, unless a consulting engineer prepared the documents.
3. Standard VDOT specifications contained in the Road and Bridge Specifications allow VDOT to avoid preparing separate specifications for each project. Site-specific plans are required, and they should refer to the VDOT Standards. Plans are not required for relocation or replacement of existing waterlines with identically sized pipe per an interagency agreement. (This is NOT true for non-VDOT projects).

Note that VDOT specifications and standards should only be referenced in VDOT projects.

B. VA Department of Corrections

1. Well Dedication Document – same as 8.A.1.
2. Direct all correspondence to Capital Outlay Program Assistant Director, Department of Corrections, 6900 Atmore Drive, Richmond, Virginia 23225.

C. State Parks

1. Well Dedication Document – same as 8.A.1.
2. Direct all correspondence to State Parks Director, 203 Governor Street, Suite 306, Richmond, Virginia 23219.

D. Public Schools

1. Well Dedication Document – same as 8.A.1.
2. Direct all correspondence to County or City School Superintendent, with copies to the consulting engineer and Local Health Department.

E. Division of Engineering and Buildings

1. Well Dedication Document – same as 8.A.1.
2. Direct all correspondence to Deputy Director, Division of Engineering and Buildings, 209 Ninth Street, Richmond, Virginia 23219, and the water purveyor, as appropriate.
3. We will review water sources, treatment, pumping, storage, etc. but NOT cross-connection control, other than containment devices.

APPENDIX A
SCOPE & DETAIL CHECKLIST

**OFFICE OF DRINKING WATER
SCOPE AND DETAIL CHECKLIST**

PROJECT: _____
CITY/COUNTY: _____
DESIGN FIRM: _____

VDH PROJECT NO. _____
RECEIPT DATE: _____
S & D DATE: _____
VDH ENGINEER: _____

Minimum Items Required to Initiate Plan Review

	DATE	YES	NO	N/A
I. PRELIMINARIES				
A. Application for permit on file?	_____	_____	_____	_____
B. Preliminary Engineering Conference held?	_____	_____	_____	_____
C. Comprehensive Business Plan submitted?	_____	_____	_____	_____
D. Preliminary Engineering Report approved?	_____	_____	_____	_____
II. PERMISSIONS				
A. DEQ Groundwater Withdrawal Permit		_____	_____	_____
B. "Joint Permit" for surface water withdrawal		_____	_____	_____
C. VPDES application		_____	_____	_____
III. DESIGN CRITERIA				
With design notes, hydraulic calculations		_____	_____	_____
IV. WELL LOT (N/A if ownership will be local government)				
A. Recorded plat		_____	_____	_____
B. Recorded Dedication Document		_____	_____	_____
V. QUANTITY				
A. Safe Yield documentation		_____	_____	_____
B. Well completion report		_____	_____	_____
VI. QUALITY				
A. Chemical		_____	_____	_____
B. Bacteriological		_____	_____	_____
C. Radiological		_____	_____	_____
VII. PLANS & SPECIFICATIONS				
A. Adequate number of documents		_____	_____	_____
B. Title Page / Cover Sheet for each document				
1. Owner & Engineer name & address		_____	_____	_____
2. Original PE seal with signature & date		_____	_____	_____
C. Plan pages				
1. Legible		_____	_____	_____
2. Adequate size		_____	_____	_____
3. Facsimile PE seal with signature & date		_____	_____	_____

THIS SUBMITTAL (IS) (IS NOT) SUFFICIENTLY COMPLETE TO INITIATE A FULL REVIEW.

District Engineer (Deputy Field Director)

Date

Additional Comments: (use reverse side if needed)

SUBJECT: (County/City)
Water – (Waterworks Name)

(Date)

Waterworks Owner
Address 1
Address 2
City, State, Zip

Dear (Waterworks Owner):

A Preliminary Engineering Report prepared by (consultant) or (waterwork's owner) for (waterworks name) located in (city/county), has been reviewed by this office. The report is entitled "(report title)" and is dated (date).

The report proposes to (describe project).

The Virginia Health Department, Office of Drinking Water, in accordance with 12 VAC 5-590-200 of the Commonwealth of Virginia Waterworks Regulations approves the Preliminary Engineering Report (with the following comments and/or conditions:)

- 1.
- 2....

If applicable:

This waterworks is located in a Groundwater Management Area as declared by the State Water Control Board. You may need to obtain a Groundwater Withdrawal Permit from the Department of Environmental Quality (DEQ) in order to withdraw and use water from the proposed well. Please contact (name) in the DEQ's _____ Regional Office at (phone number) for further information on the Groundwater Withdrawal Permit.

One copy of the report has been stamped approved (with conditions) and is enclosed. If we can be of additional assistance, please contact (District Engineer or Deputy Field Director) at (phone number).

Sincerely,

Engineering Field Director

Cc: Consulting engineer
County Administrator
ODW-Central

APPENDIX B.2
SCOPE & DETAIL RETURN

SUBJECT: (County/City)
Water – (Waterworks Name)

(Date)

Consulting Engineer

Address 1

Address 2

City, State, Zip

Dear (Consulting Engineer):

This office has received (plans and specifications) prepared by your firm for (describe project or give title of project documents). We have completed a Scope and Detail review of the documents and have determined that the documents, as submitted, are incomplete. As such, we cannot proceed with the technical evaluation of this project.

Alternate 1:

(The following information is required:

- 1.
- 2.
- 3.
- 4.

Please submit this information within thirty days, so that we may initiate a technical evaluation of the project.)

Alternate 2:

(The documents are returned with this letter. Please refer to the *Waterworks Regulations* for submittal requirements for a construction permit.)

By copy of this letter the owner is reminded that §12VAC 5-590-190 of the Waterworks Regulations requires that no construction or modification to the waterworks shall proceed without a written Construction Permit. If you have any questions concerning the above comments or desire further information, please do not hesitate to call.

Sincerely,

District Engineer (Deputy Field Director)

Cc: *Waterworks Owner*
ODW-Central

APPENDIX B.3
REVIEW COMMENTS

SUBJECT: (County/City)
Water – (Waterworks Name)

(Date)

(Consulting Engineer)
Address 1
Address 2
City, State, Zip)

Dear (Consulting Engineer):

This office has received (plans and specifications) (change order) (addenda) (Preliminary Engineering Report) (Operation and Maintenance Manual) prepared by your firm for (describe project or give title of document). We have completed review of the documents and

- (1) in order to complete our review, we are requesting the following information:
- (2) the following revisions are necessary to comply with the Waterworks Regulations:
- (3) the following recommendations are offered:

Please submit a written response to these comments within thirty days, so that we may complete our review of the project. If you have any questions concerning the above comments or desire further information, please do not hesitate to call.

Sincerely,

District Engineer (Deputy Field Director)

Cc: *Waterworks Owner*
ODW-Central
Funding agency

APPENDIX B.4
RECORD DRAWINGS APPROVAL

SUBJECT: (County/City)
Water – (Waterworks Name)

(Date)

(Waterworks Owner
Address 1
Address 2
City, State, Zip)

Dear (Waterworks Owner):

(Record drawings) Plans and specifications for the construction of (additions to) (modifications to) a (community) (nontransient) (noncommunity) waterworks located in (City/County name), have been reviewed by this Office. The documents, prepared by (Consulting Engineer) (are dated) (are stamped with our receipt date of) (date) and include sheets __ through __ and are entitled "(drawing cover sheet title)". The specifications (are dated) (are stamped with our receipt date of) (date) and are entitled "(specifications title)".

The project consists of (brief project description).

The plans and specifications are technically adequate and are approved by this Office, in accordance with Commonwealth of Virginia *Waterworks Regulations*, §12 VAC 5-590-220. One copy of these plans and specifications has been stamped approved (and is enclosed) (and is being forwarded under separate cover).

CASE 1: Since these plans reflect changes to a previously-approved project, a construction permit will not be issued.

CASE 2: Since the construction of this project preceded the formal approval process due to (specify emergency condition), a construction permit will not be issued.

Upon completion of construction, the owner shall submit a statement signed by a registered professional engineer stating that the work was completed in accordance with the approved plans and specifications. . [Upon receipt of this statement, (the satisfactory results of bacteriological analysis), and final inspection by an Office representative, the State Health Commissioner will (amend your present waterworks operation permit) (issue a waterworks operation permit) in accordance with the *Regulations*.]

or

[Upon final inspection by an Office representative and satisfactory results of the bacteriological analysis, the project may be put into service.]

APPENDIX B.4
RECORD DRAWINGS APPROVAL (cont.)

You are reminded that § 12 VAC 5-590-190 of the Waterworks Regulations requires that no construction or modifications to a waterworks shall be made without obtaining a written Construction Permit. If we can be of additional assistance, please contact (District Engineer or Deputy Field Director) at (phone number).

Sincerely,

[Engineering Field Director] OR [Director
Office of Drinking Water]

- Cc: Consulting engineer
- Local Health Department, attn: Health Director
- County Administrator
- County Building Official
- ODW-(Central) (Field Office)
- Funding agency

APPENDIX B.5
CHANGE ORDER / ADDENDA APPROVAL

SUBJECT: (County/City)
Water – (Waterworks Name)

(Date)

(Waterworks Owner)
Address 1
Address 2
City, State, Zip

Dear (Waterworks Owner):

Change Order (Addendum) (Addenda) No(s). ___ and ___ to the plans and specifications for (waterworks name) located in (County / City name) have been reviewed by this office. The original plans and specifications were approved on (approval date).

Change Order (Addendum) (Addenda) No(s). ___ and ___ provides for (brief description).

The Change Order (Addendum) (Addenda) is (are) technically adequate and is (are) approved by this Office, in accordance with Commonwealth of Virginia *Waterworks Regulations*, §12 VAC 5-590-240. One copy of these *documents* has been stamped approved and is enclosed.

If we can be of additional assistance, please contact (District Engineer or Deputy Field Director) at (phone number).

Sincerely,

[Engineering Field Director] OR [Director
Office of Drinking Water]

Cc: Consulting engineer
Local Health Department, attn: Health Director
County Administrator
County Building Official
DDW-(Central) (Field Office)
Funding agency

APPENDIX B.6
PROJECT RETURN

SUBJECT: (County/City)
Water – (Waterworks Name)

(Date)

(Consulting Engineer)
Address 1
Address 2
City, State, Zip)

Dear (Consulting Engineer):

On (date), this office received (describe documents) as prepared by your firm for (waterworks name).

In our (letter to you dated) (telephone conversation with you on) (1st comment date), we requested clarification of and/or revisions to the project within 30 days. On (1st reminder date), we contacted you by telephone and requested that you submit a written response and revisions, as appropriate, or a written request to delay project review for a specific time period. We contacted you again by telephone on (2nd reminder date) and requested that you submit a satisfactory response within 10 days, or formally withdraw the project from our review process.

Since we have not received notice from you and the 10 days has expired, we are returning the project documents herewith, unapproved. By copy of this letter the owner is reminded that §12VAC 5-590-190 of the Waterworks Regulations requires that no construction or modification to the waterworks shall proceed without a written Construction Permit.

Sincerely,

District Engineer (Deputy Field Director)

Cc: *Waterworks Owner*
Local Health Department, attn: Health Director
County Administrator
County Building Official
ODW-Central

APPENDIX B.7
DEQ NOTIFICATION OF WASTEWATER DISCHARGE

SUBJECT: (County/City)
Water – (Waterworks Name)

(Date)

(Regional Office
Department of Environmental Quality
Address 1
Address 2
City, State, Zip)

Gentlemen:

The Department of Health has received plans and specifications from (waterworks owner) for construction of a water treatment facility to serve (service area), located in (County/City name).

The waterworks is designed for a capacity of ___ mgd. Wastewater will be generated from (describe unit treatment processes) (and treated subsequently by (describe further treatment and dewatering, if applicable)) Wastewater from these processes will be discharged to the (receiving stream).

This information is being supplied to you for appropriate action by DEQ that you believe is necessary.

Sincerely,

District Engineer (Deputy Field Director)

Cc: *Design Engineer*
Local Health Department, attn: Health Director
ODW-Central

APPENDIX C
DESIGN EXCEPTION MEMO

DATE:

TO: _____, (Field) Director
Office of Drinking Water

FROM: _____, (Deputy) Field Director

(THROUGH: _____, Deputy Field Director)

SUBJECT: Design Exception Request
City / County: _____
Project: _____

This office has received a design exception request for the subject project.

SECTION: (applicable Waterworks Regulation section(s))

DESCRIPTION: (brief description of exception)

JUSTIFICATION: (brief explanation)

RECOMMENDATION: We believe that the engineer has (has not) adequately justified the request, as outlined in the enclosed engineer's letter, dated _____.
We request that you approve (disapprove) the request. *(add conditions as appropriate)*

APPENDIX D
CONSTRUCTION PERMIT

Use Official letterhead

SUBJECT: (County/City)
Water – (Waterworks Name)

WATERWORKS CONSTRUCTION PERMIT

Permit No. _____ **Effective Date** _____ **Expiration Date** _____

Issued to:

(Waterworks Owner)
Address 1
Address 2
City, State, Zip

ATTN: (Administrative Contact)

(Revised) Plans and specifications for the (construction of) (additions to) (modifications to) a (community) (nontransient) (noncommunity) waterworks located in (City/County name), have been reviewed by this Office. The plans, prepared by (Consulting Engineer) (are dated) (are stamped with our receipt date of) (date) and include sheets __ through __ and are entitled "(drawing cover sheet title)". The specifications (are dated) (are stamped with our receipt date of) (date) and are entitled "(specifications title)".

The project consists of (brief project description).

The plans and specifications are technically adequate and are approved by this Office, in accordance with Commonwealth of Virginia *Waterworks Regulations*, §12 VAC 5-590-220. One copy of these plans and specifications has been stamped approved (and is enclosed) (and is being forwarded under separate cover). Any local permits must be obtained before construction begins.

This Waterworks Construction Permit is issued in accordance with § 12 VAC 5-590-230 of the *Waterworks Regulations*. This is your authorization from the State Health Commissioner to construct (additions to) (modifications to) the subject waterworks in accordance with these approved plans and specifications. Any deviations from the approved documents affecting capacity, hydraulic conditions, operating units, the functioning of the treatment processes, or the water quality delivered, must be approved by this Office before any such changes are made. Revised plans and specifications shall be submitted to (this office) (the _____ Field Office) in time to permit review and approval before construction.

CONSTRUCTION PERMIT (cont.)

Upon completion of construction, the owner shall submit a statement signed by a registered professional engineer stating that the work was completed in accordance with the approved plans and specifications.

[Upon receipt of this statement, (the satisfactory results of bacteriological analysis), and final inspection by an Office representative, the State Health Commissioner will (amend your present waterworks operation permit) (issue a waterworks operation permit) in accordance with the *Regulations.*] or

[Upon receipt of this statement (, final inspection by an Office representative) and satisfactory results of the bacteriological analysis, the project may be put into service.]

If applicable:

[This waterworks is located in an area designated as a Groundwater Management Area by the State Water Control Board. Therefore a Groundwater Withdrawal Permit from the Department of Environmental Quality may be required. It is understood that you have begun the process of obtaining this permit.] or

[The Department of Environmental Quality has (developed a draft) (issued a) Groundwater Withdrawal Permit No. GW___ for this groundwater source. Adherence to the responsibilities and compliance requirements of that permit is also required.]

If we can be of additional assistance, please contact (District Engineer or Deputy Field Director) at (phone number).

Sincerely,

Engineering Field Director
???? Field Office



Gerald Peaks, P.E.
Director, Office of Drinking Water
for the State Health Commissioner pursuant to VA. Code § 2.2-604

Cc: *Consulting engineer*
Local Health Department, attn: Health Director
County Administrator
County Building Official
Funding agency
ODW-(Central) (Field Office)

**VIRGINIA DEPARTMENT OF HEALTH
ENGINEERING DESCRIPTION SHEET
of Proposed Construction**

WATERWORKS NAME:

PERMIT NUMBER:

EFFECTIVE DATE:

EXPIRATION DATE:

SOURCE: *groundwater wells, springs or surface water source(s)*

DESCRIPTION OF PROJECT

The project consists of

- *detailed description of construction project*
- *follow water from source to distribution*
- *use subject headings for clarity*

PROJECT CAPACITY EVALUATION

*include capacity evaluation here for each major element included in the project
refer to WM 865*

This project will result in (a)(an) (increase) (decrease) (no change) to the waterworks permit capacity.

CONSTRUCTION PERMIT CHECKLIST

**OFFICE OF DRINKING WATER
CENTRAL OFFICE APPROVAL CHECKLIST
CONSTRUCTION PERMIT**

Date: _____

Central Office Receipt Date

TO: OFFICE OF DRINKING WATER – Central Office

FROM: Field Director signature or initials
Field Director

SUBJECT: _____

Water- _____

Community Nontransient-Noncommunity Transient-Noncommunity (circle one)

- ___ *Construction Permit, with addressed envelopes to all parties copied*
- ___ Engineering Description Sheet
- ___ Approved Design Exception
- ___ Approved Variance
- ___ Approved Exemption
- ___ Mailing Label to Owner (permit, construction documents together)
- ___ Application
- ___ Scope & Detail Checklist
- ___ Review Notes with Calculations (in-house & design engineer)
- ___ All correspondence
- ___ Plans, specifications, addenda & change orders (2 copies)

Well Information

- ___ Yield Test
- ___ Well Completion Report (2 copies – VDH, DEQ)
- ___ Recorded Well Dedication Document
- ___ Recorded Well Lot Plat showing access road
 - Development Samples VDH DEQ - copies enclosed
 - Bacteriological series _____
 - Radiological _____
 - Inorganic/Physical _____
 - Metals _____
 - Organic (except THM) _____
 - Cyanide _____

Cross Connection Control Program

- ___ has approved program on file
- ___ included in this submittal
- ___ pending

Licensed Operator – Waterworks Class: _____

- ___ not required
- ___ has a licensed operator
- ___ pending

Comments: _____

APPENDIX G
FIELD OFFICE APPROVAL CHECKLIST

**OFFICE OF DRINKING WATER
FIELD OFFICE APPROVAL
CONSTRUCT PERMIT**

Field Office: _____ Issued by: _____
Permit No.: _____ Issuance Date: _____
Community / NTNC / TNC (circle one) County/City: _____
Waterworks: _____
Project: _____

To Central Office:

- _____ Waterworks Application
- _____ Scope and Detail Checklist
- _____ Construction Permit
- _____ One set of plans, specs, C.O., etc. with approval signature
- _____ Engineering Description Sheet (if required)
- _____ Design Exception (if issued by Field Office)
- _____ Other pertinent documentation, correspondence, etc.

Comments:

Field Office files only. Do not forward to Central:

- _____ Review notes with calculations, and Design Exception, if issued
- _____ All correspondence pertaining to the project
- _____ Original Construction Permit, EDS (if required), signed plans, specifications, etc. to Owner
- _____ Copy of Construction Permit, EDS (if required), signed plans, specifications, etc. to FO files
- _____ Copy of Construction Permit to consultant
- _____ Copy of Construction Permit to LHD
- _____ Copy of Construction Permit to Local Building Official
- _____ Copy of Construction Permit to other interested parties

APPENDIX H
WELL DEDICATION DOCUMENT

WELL LOT CERTIFICATION

WHEREAS, The Commonwealth of Virginia, through (Legal Owner), is the owner in fee simple of certain real property lying and being in _____ City (County), Virginia, more particularly described by (Deed or Certificate of Deposit) recorded in Deed Book _____ at page _____ in the Office of the Circuit Court of _____, Virginia and

WHEREAS, the (Legal Owner) proposes to construct and operate on the aforesaid real property a well and appurtenances thereto for the purpose of supplying water to the public, or to more than 25 individuals, said well lying within the well lot described by plat of survey attached hereto and made part hereof,

NOW THEREFORE, in accordance with the *Waterworks Regulations*, § 5-590-840 of the Virginia Department of Health, issued pursuant to Chapter 6, Title 32.1 of the *Code of Virginia* (1979), as amended, the (Legal Owner) hereby certifies to the Department of Health that the aforesaid well lot shall hereafter be used for water supply purposes only, and that the only improvements or appurtenances to be located thereon shall be those which are necessary or convenient to the operation of a waterworks. Accordingly, the (Legal Owner) shall not permit the area within said well lot to be used for any purpose which would cause contamination of the water supply or for human habitation.

It is understood that the purpose of the Certification is to assure the Department of Health that the said well lot shall be properly used for a water supply system only. The Certificate also provides public notice that any subsequent owner of the well lot and water supply system shall be subject to the same regulations and restrictions, so long as such parcel of land is used for a water supply system serving the public or more than twenty-five individuals. This certification shall be null and void and of no further effect should the well on the aforesaid premises be abandoned and the use thereof for a water supply system cease.

WITNESS the following signature of the (Legal Owner) this _____ day of _____.

STATE OF VIRGINIA

CITY/COUNTY OF _____

I, _____, A Notary Public for the City/County of aforesaid in the State of Virginia, do certify that _____, whose name is signed to the foregoing writing, bearing date on the _____ day of _____, has acknowledged the same before me in my City/County aforesaid.

Given under my hand this _____ day of _____.

Notary Public

My commission expires _____.

APPENDIX I
PERMIT APPLICATION

WATERWORKS PERMIT APPLICATION - PART A: Notification of Intent

Return to Virginia Department of Health _____ Field Office

1. Permit Type: Construction: New _____ Repair _____ Modify _____ Extend _____
Operation: _____ (ownership transfer; facilities in existence)

2. Waterworks Name, if any: _____
State assigned PWS identification number, if any: _____
City/County _____
Water Source: Surface _____ Name _____
Well _____ Purchased _____ From _____
Date Previous Owner

3. Proposed number of connections: _____

4. Description of proposed work (*construction permits*): _____

5. I am associated, directly or indirectly, with the following waterworks (*name and PWS ID*):

6. I am aware of needed local government approvals including zoning __YES__ NO.

7. I am aware that permits may be needed for water withdrawal or waste discharge permits. __YES__ NO.

8. I have contacted the State Corporation Commission (*community waterworks serving 50+ connections*)
__YES__ NO.

9. Please schedule a Conference for the _____ week of _____, 20__.

Applicant Name (Legal owner): _____
EIN or Social Security #: _____
Address: _____

Home Phone: _____ - _____ - _____
Work Phone: _____ - _____ - _____

Applicant's Signature Date