



April 6, 2021

ENGINEERING FIELD HANDBOOK NOTICE PA-45

Action: The following fact sheet has been developed for use by NRCS (Natural Resources Conservation Service), their partners and the general public.

Pennsylvania Fact Sheet #11 - Pennsylvania Ground Water Withdrawal Guidelines

Background: Provides general history of groundwater law in Pennsylvania and focuses on additional roles and regulations within the Susquehanna and Delaware River Basins.

It is the responsibility of the property owner to apply for reviews, pay fees, get permits, etc. as applicable to the well location and anticipated or desired yield or usage.

Filing: *Pennsylvania Fact Sheet #11*, dated March 2021, has been filed on the PA NRCS website under Topics, Technical Resources, Engineering, Fact Sheets or use the following direct link and click "NRCS-PA-ENG-FS-11".

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/pa/technical/?cid=nrcs142p2_018113

If you have any questions regarding this document, please contact Mark Buckwalter, Ag/Civil Engineer. Mark.Buckwalter@usda.gov

Peter J. Vanderstappen, PE

Acting State Conservationist



April 6, 2021

ENGINEERING FIELD HANDBOOK NOTICE PA-44

Action: Pennsylvania Standard Drawings PA-64 (PA Round Tank), PA-67 (PA Round Tank with Ramp), and PA-83 (Pennsylvania Round Tank No Ramp) have been updated.

Background: PA-64, PA-67, and PA-83 provide standard cast in place circular concrete tank designs for the purpose of storing waste. Designs include various tank diameters and depths. Designs were updated to include additional horizontal steel to meet a minimum reinforcement steel to concrete ratio of 0.005 in the bottom 1/3 of the concrete tank walls. Additional minor changes were made to make drawings more consistent.

Filing: The standard drawings have been filed on the PA NRCS website under Technical Resources, Engineering, Engineering Tools and Resources, Standard Pennsylvania Drawings or use the following direct link and click to find all standard Pennsylvania drawings.

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/pa/technical/?cid=nrcs142p2_018116

If you have any questions regarding these drawings, please contact Tim Peters, Agricultural Engineer. Tim.Peters@usda.gov

Peter J. Vanderstappen, PE

Acting State Conservationist



March 16, 2020

ENGINEERING FIELD HANDBOOK NOTICE PA-43

Action: PA-3 “Soils Investigation Log” for Conservation Practices has been developed for use by Natural Resource Conservation Service (NRCS), partners, and the general public.

Background: Several variations of this form have been used to log soils investigations. This version provides a better format for documentation and includes reminders to assure that the investigation is complete. The detail and amount of information needed will vary depending on the type of conservation practice being planned. Waste Storage Facilities will require the greatest amount of detail. Designers shall document by written narrative or design comment how collected soils information supported design decisions.

Filing: The PDF version of PA-3 “Soils Investigation Log” for Conservation Practices has been filed on the PA NRCS website under Technical Resources, Engineering, Engineering Tools and Resources, Construction Guides, PA-3 or use the link below:

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/pa/technical/engineering/?cid=nrcs142p2_018110

It can also be found under PA Addendums to the Engineering Field Handbook. Start by using the link below:

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/pa/technical/engineering/?cid=nrcs142p2_018115

and then clicking “Index of EFH Notices PA 1-43”

If you have any questions regarding these materials, please contact Tim Peters, Agricultural Engineer: Tim.Peters@usda.gov.

Denise Coleman

State Conservationist



February 13, 2017

ENGINEERING FIELD HANDBOOK NOTICE PA-42

Action: Standard Drawing Number *PA-084.1-2, AHF* (Agrichemical Handling Facility) *Details* has been added to the list of *Standard Pennsylvania Drawings* for use by NRCS (Natural Resource Conservation Service), partners, and the general public.

Background: *PA-084.1-2, AHF Details* – This set of drawings details the steel and concrete requirements for the floor and sump options used to meet the Pennsylvania Conservation Practice Standard (309), Agrichemical Handling Facility. These details reflect the significant changes in requirements in concrete quality and steel quantity as a results of the updates that became effective in February 2016.

Filing: The PDF version of *PA-084.1-2, AHF Details* dated January 2017 had been filed on the PA NRCS website under Technical Resources, Engineering, Engineering Tools and Resources, Standard Pennsylvania Drawings, and click “PA-084.1-2” or use the link below:

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/pa/technical/engineering/?cid=nrcs142p2_018116

NRCS staff can also obtain the AutoCAD version on the State Office shared drive.

If you have any questions regarding these materials, please contact Pete Vanderstappen, Assistant State Engineer. Peter.vanderstappen@pa.usda.gov

Hosea Latshaw

Acting State Conservationist



August 1, 2016

ENGINEERING FIELD HANDBOOK NOTICE PA-41

Action: The following fact sheet has been updated and is for use by NRCS (Natural Resource Conservation Service), partners, and the general public.

Pennsylvania Fact Sheet #4 – Agricultural Waste System Safety Signs

Background:

Fact Sheet #4 – Updated to the new format and now includes the “**Never Dump Over Fence**” safety sign. This sign was developed to alert equipment operators to not dump manure over the chainlink safety fence used around manure storages. These fences are not designed to keep equipment from falling through the fence and into the storage.

Filing: *Pennsylvania Fact Sheet #4*, dated August 2016 has been filed on the PA NRCS website under Technical Resources, Engineering, Engineering Tools and Resources, Fact Sheets or use the following direct link and click “NRCS-PA-ENG-FS-04”.

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/pa/technical/?cid=nrcs142p2_018113

If you have any questions regarding these materials, please contact the State Conservation Engineer, Hosea Latshaw at Hosea.Latshaw@pa.usda.gov

DENISE COLEMAN

State Conservationist



February 8, 2016

ENGINEERING FIELD HANDBOOK NOTICE PA-40

Action: The following fact sheets have been developed for use by NRCS (Natural Resource Conservation Service), their partners, and the general public.

Pennsylvania Fact Sheet #7 – Skid Loader Safety Concerns Near Manure Storages

Pennsylvania Fact Sheet #8 – Manure Storage Maintenance and Safety

Pennsylvania Fact Sheet #9 – Agriculture Construction Safety

Pennsylvania Fact Sheet #10 – Safety and Emergency Response for Manure Management Systems

Background:

Fact Sheet #7 - Outlines common concerns and considerations when operating a skid loader near manure storages.

Fact Sheet #8 - Outlines common maintenance and safety issues found around existing manure storages and promotes development of a written safety plan focused on activities around a manure storage.

Fact Sheet #9 - Outlines the key OSHA (Occupational Safety and Health Administration) regulations applicable to typical NRCS construction activities and that should be included in all engineering design packages.

Fact Sheet #10 – Updates the Safety Section of the Manure Management for Environmental Protection Document MM2 dated 11/2001. This is can be included as support documentation for projects with waste storage facilities.

Filing: *Pennsylvania Fact Sheet #7, #9, and #10*, dated January 2016 and *Pennsylvania Fact Sheet #8*, dated February 2016 have been filed on the PA NRCS website under Technical Resources, Engineering, Engineering Tools and Resources, Fact Sheets or use the following direct link and click “NRCS-PA-ENG-FS-07 or NRCS-PA-ENG-FS-08 or NRCS-PA-ENG-FS-09 or NRCS-PA-ENG-FS-10”.

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/pa/technical/?cid=nrcs142p2_018113

If you have any questions regarding these materials, please contact the State Conservation Engineer, Hosea Latshaw at Hosea.Latshaw@pa.usda.gov

DENISE COLEMAN, State Conservationist



January 15, 2015

ENGINEERING FIELD HANDBOOK NOTICE PA-39

Action: *Pennsylvania (PA) Fact Sheet #6 – Natural Resources Conservation Service (NRCS) Engineering Job Approval Authority* has been developed to provide general information regarding NRCS Engineering Job Approval Authority for the general public and our partner agencies.

“Engineering Fact Sheets by Others” is a new category of resource information on the PA NRCS website. Listed below are several Fact Sheets related to manure safety.

G-112	Safety Risk from Manure Storages of Dairy Cows Bedded with Gypsum
N/A	Open Air Manure Storage Safety Tips
E-51	Confined Space Manure Storage Hazards
E-52	Confined Space Manure Gas Monitoring
E-53	Confined Space Manure Storage Ventilation Systems
E-54	Confined Space Manure Storage Emergencies

Background: *Fact Sheet #6* explains the NRCS Engineering Job Approval Authority system used by NRCS staff for all conservation engineering practice plans, designs, and installations. It then describes the process and limitations by which partner employees can work under this Job Approval Authority system.

“Engineering Fact Sheets by Others” was added to showcase some additional fact sheets that are related to Waste Storage Facility safety concerns in one location.

Filing: *Pennsylvania Fact Sheet #6*, dated December 2014 had been filed on the PA NRCS website under Technical Resources, Engineering, Engineering Tools and Resources, Fact Sheets or use the following direct link and click “NRCS-PA-ENG-FS-06”

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/pa/technical/?cid=nrcs142p2_018113

This same link will get you to the listing of the *"Engineering Fact Sheet by Others"*. To see them click the name for viewing. Follow directions on that site to save as a Portable Document Format (PDF) file.

If you have any questions regarding these materials, please contact the State Conservation Engineer, Hosea Latshaw at Hosea.Latshaw@pa.usda.gov.



DENISE COLEMAN

State Conservationist



December 3, 2014

ENGINEERING FIELD HANDBOOK NOTICE PA-38

Action: *Pennsylvania Fact Sheet #5* has been developed to assist an owner or producer in evaluating the pros and cons of putting a waste storage facility under an animal housing facility.

Background: This was developed to raise awareness of the negative impacts of siting a waste storage facility under any type of animal housing in regards to animal health and other safety concerns.

Filing: *Pennsylvania Fact Sheet #5*, dated December 2014 had been filed on the Pennsylvania (PA) Natural Resources Conservation Service (NRCS) website under Technical Resources, Engineering, Engineering Tools and Resources, Fact Sheets or use the following direct link and click "NRCS-PA-ENG-FS-05"

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/pa/technical/?cid=nrcs142p2_018113

If you have any questions regarding these materials, please contact the State Conservation Engineer, Hosea Latshaw at Hosea.Latshaw@pa.usda.gov

A handwritten signature in blue ink, appearing to read "Denise Coleman".

DENISE COLEMAN
State Conservationist

As an owner or producer, selecting a site for a waste storage facility involves many considerations. If you are considering putting the storage under any animal housing facility, consider the following pros and cons prior to making your final determination.

Pros:

- Reduced hauling costs. Excess rainfall not collected.
- Space savings under tight land conditions when the storage is under the barn.
- Elimination of bedding for stalls.
- Decreased cost to operate and maintain (No bedding and manure collection costs).
- Under normal weather conditions concentrations of manure gases should be below harmful limits.
- Lower energy usage for movement of manure. Manure falls directly into the storage.
- Less environmental impact from reduced volume of wastes and variability on storage volume since rainfall collection is optional.
- The waste storage and odor are both “hidden from sight” from others and shielded from natural air movement.



Cons:

- More costly for the original waste structure construction.
- Higher, up-front cost per stall to provide a non-organic bedding surface.
- Sand bedding is not an option.
- Naturally ventilated facilities suffer air quality issues during a weather inversion. During agitation and unloading, animal removal may be required along with no human entry.
- Stray sparks from torches, welding equipment and small internal combustion engines can result in ignition of explosive gases located just below the slats.
- Power outages in tunnel ventilated barns during hot weather raises the potential of manure gases accelerating the effects of heat stress on all occupants.
- Close proximity of manure gases may accelerate corrosion of metal components of barn
- High manure odors may occur inside barn, as the animals are housed directly over the manure storage. Ammonia, carbon dioxide, hydrogen sulfide, and methane all can be fatal to both animals and humans in high concentrations.
- Livestock health, especially young stock, may be affected by sub-lethal exposure to gases.
- Dangerous gases can be present in high concentrations during agitation. No human or animal entry into barn during agitation is recommended
- Addition of sulfur products to the manure produces increased hydrogen sulfide gases which would be in close proximity to the animals (gypsum, silage leachate, etc.) and potentially deadly during agitation.
- Possible cow adjustment period and health issues during a transition to less bedding in stalls and increased time spent on slats.
- Agitation of the manure and solids removal is more difficult under a covered storage. A dilution water source is needed and must be managed to facilitate removal.
- Requires a greater awareness on the part of the producer and the workers in the barn of the behavior of stored manure and how it can affect them and the animals housed over it.



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March 10, 2013

ENGINEERING FIELD HANDBOOK NOTICE PA-37

Action: *Pennsylvania Fact Sheet #4* has been updated to include wording for Spanish versions of our safety signs used at reception pits and manure storages. Three types of signs were translated to cover the different hazards associated with these facilities. A supplement sheet is attached to show the actual wording for both a single sign and side by side sign option.

Background: Many larger agricultural operations employ Spanish speaking workers that may work around the manure storage facilities. It was determined that Natural Resource Conservation Service (NRCS) should make an additional effort to warn this group of the potential hazards associated with reception pits and manure storages. We strongly encourage the usage of these signs on operations with Hispanic workers, in addition to the traditional English only signs as required in our standards.

Filing: *Pennsylvania Fact Sheet #4*, dated October 2013 has been replaced with the newer version dated March 2014 along with a supplement at the following location.

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/pa/technical/?cid=nrcs142p2_018113

If you have any questions regarding these materials, please contact the State Conservation Engineer, Hosea Latshaw at Hosea.Latshaw@pa.usda.gov

DENISE COLEMAN

State Conservationist



November 26, 2013

ENGINEERING FIELD HANDBOOK NOTICE PA-36

Action: Officially announce changes to the Standard Pennsylvania Drawings, **PA-083-r1_1-3**, PA Round Tank (No Ramp); **PA-067-r1_1-6**, PA Round Tank (With Ramp); **PA-002A-r1**, Chain link Fence; **PA-002B**, Woven Wire and High Tensile Safety Fence Options; **PA-039-r1**, Push off Safety Guards; **Pa-040-r1**, Extended Push-off; and **PA-068-r1**, Push-off Ramp.

Background: These changes and updates were previously announced in Pennsylvania Bulletin No. PA 210-13-1 or PA 210-14-1. The purpose of this document is to document the official location of this information.

Action Taken: These previously posted Standard Pennsylvania Drawings can be found on the PA NRCS Website under Topics, Technical Resources, Engineering Tools and Resources, Standard Pennsylvania Drawings or by linking to:

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/pa/technical/>

Filing a hardcopy in the EFM on pages 5-27.1-2 is optional. It can be obtained by cutting and paste the official listing at the above web site.


DENISE COLEMAN

State Conservationist



Natural Resources Conservation Service
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Harrisburg, PA 17110-2993

March 15, 2013

ENGINEERING FIELD HANDBOOK NOTICE PA-35

Action: It is the responsibility of the contractor/installer to provide safety signs as shown in the attachment known as *Pennsylvania Fact Sheet #4*. One shall be located at each entrance/access point where access can result in a fatality due to manure gases and/or drowning. Several signs are specified for larger facilities. Three types of signs are required to cover different hazards.

Background: Safety signs are designed to serve as a reminder of a hazard and consequences; the signs do not replace or substitute for original product warnings or labels, equipment safety literature, or specific safety training associated with manure systems and handling equipment. Owner/operators shall consult their site specific engineering designs, safety plans, and operation/maintenance plans for additional safety requirements. If no information is found, or more is needed, additional information can also be received from equipment manufacturers and distributors, county extension offices, private consultants, and NRCS offices.

Filing: Pennsylvania Fact Sheet #4 has been added to the web-file located here:
http://www.pa.nrcs.usda.gov/technical/Engineering/fact_sheets/Eng_factsheets.html

However, for those maintaining a hard-copy please log EFH PA Notice 35 then please record and add Pennsylvania Fact Sheet #4 to page 5-31.

If you have any questions regarding these materials, please contact the State Conservation Engineer, Hosea Latshaw at Hosea.Latshaw@pa.usda.gov.

A handwritten signature in black ink that reads "Denise Coleman". The signature is written in a cursive, flowing style.

DENISE COLEMAN
State Conservationist

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United States Department of Agriculture



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November 17, 2011

ENGINEERING FIELD HANDBOOK NOTICE PA-34

A revised table of 24-hour design rainfall amounts per various frequencies for PA counties has been developed by NOAA 14. These are based upon rainfall data developed by the National Oceanic and Atmospheric Administration Atlas 14 (NOAA 14).

A revised rainfall distribution table has been developed for the four different regions of PA. These were developed by the National Oceanic and Atmospheric Administration Atlas 14 (NOAA 14) and rainfall distributions based on the NOAA 14 data.

These rainfall data and rainfall distributions will replace rainfall data from Weather Bureau Technical Paper 40 (TP-40) and the standard NRCS rainfall distributions Type II, listed in the EFH on page 2-13. The old values shall no longer be used for design purposes.

The designer shall now use the regional rainfall distribution assigned to the county of the conservation practice being designed.

The EFH-2 computer files for this data have been downloaded onto your computer. They can also be found on the PA NRCS website. Supplemental information has been developed to assist EFH-2 users with the changes made to the data.

The EFH has been updated on the PA NRCS website by using the attached PA-34 Supplement. This also acts to replace Sheets 2-14.A&B (11/3/08).

FILING

All revisions have been added to the web files; however, for those maintaining a hard copy, you are instructed to download and insert the new PA-34 Supplemental pages 2-14 A thru N. Discard the old sheets 2-14.A&B.

Questions concerning this note should be directed to Hosea Latshaw or Heather Smeltz.


DENISE COLEMAN
State Conservationist

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Attachments (1)

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Natural Resources Conservation Service
One Credit Union Place, Suite 340
Harrisburg, PA 17110-2993

March 3, 2009

ENGINEERING FIELD HANDBOOK NOTICE PA-33

Two standard drawings have been revised and placed on the shared "engineering drive" under the folder "AutoCAD Drawings" in the subfolder "PA Standard Drawings." These files will also be placed on the PA Engineering website: –

<http://www.pa.nrcs.usda.gov/technical/engineering/index.html>

- PA-082; Reinforced Concrete Walls for Hip Roof.
- PA-083; Pennsylvania Round Tank NR.

FILING: Make a pen & ink change to EFH pages 5-27 b of Table 2.

If you have any questions regarding these drawings, please contact your Area Engineer.

/s/ CRAIG R. DERICKSON

CRAIG R. DERICKSON
State Conservationist

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United States Department of Agriculture



Natural Resources Conservation Service
One Credit Union Place, Suite 340
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November 3, 2008

ENGINEERING FIELD HANDBOOK NOTICE PA-32

A revised table of 24-hour design rainfall amounts per various frequencies for PA counties has been developed. These are based upon National Weather Service NOAA Atlas 14 and replace previous values from TP-40 listed for use with EFH-2, listed in the EFH on pages 2-14.1-3. The old values should no longer be used for design purposes.

The designer should continue to use the NRCS Type II Distribution with this new rainfall data when analyzing for peak discharge computations.

The EFH-2 computer data files for this data have been downloaded onto your computer. They can also be found on the PA NRCS website.

There is too much variation across certain counties to allow for an accurate statement of a singular county value of rainfall depth for the 24-hr, 50 and 100-year frequency storms. The user is directed to the following website at which they can enter the design site's lat/long coordinates to derive these values:

http://hdsc.nws.noaa.gov/hdsc/pfds/orb/pa_pfds.html

The 5-minute duration rainfall amounts to be used for roof runoff management designs across the state are to stay the same, 0.5 inches for the 10-year frequency and 0.6 inches for the 25-yr storm.

The EFH and has been updated on the PA NRCS website by adding Sheets 2-14.A & B to replace Sheets 2-14.1-3 (03/14/79).

FILING:

All revisions have been added to the web-files; however, for those maintaining a hardcopy you are instructed to download and insert the new Sheets 2-14.A & B. Discard the old Sheets 2-14.1-3.

Questions concerning this note should be directed to the State Hydraulic Engineer, Geoff Cerrelli.

/s/ CRAIG R. DERICKSON

CRAIG R. DERICKSON
State Conservationist

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Natural Resources Conservation Service
One Credit Union Place, Suite 340
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April 1, 2008

ENGINEERING FIELD HANDBOOK NOTICE PA-31

On December 10, 2007, a new Tractive Stress design method for Grassed Waterways was posted on the Electronic Directives Web site at:
http://directives.sc.egov.usda.gov/media/pdf/H_210_650_7.pdf. Please be advised that either the new method or the allowable velocity method of waterway design will be allowed for use in PA, and both design methods may be filed in Chapter 7 of the EFH.

Pages 2-42.1&2 (Hydrologic Soil Groups for common PA soils) have been removed from the EFH. These pages were outdated. Current data can be accessed at <http://soildatamart.nrcs.usda.gov/> as follows: select State, select County, select Generate Report, select All Map Units, from the pull down menu select RUSLE2 Related Attributes, and select Generate Report.

Three new spreadsheets for Rock Lined Waterway designs have been added to the EFH. These have been inserted in the web version of the EFH, and are listed on page EFH 5-30.

Several new guides, drawings, etc, have been added recently; however, only pen & ink changes were made to the lists of these documents. Therefore, the following lists in the EFH have been updated on the PA NRCS website as listed below:

- Standard PA Drawings index and corresponding EFH page 5-27b
- PA Design Guides index and corresponding EFH page 5-28
- PA Construction Guides index and corresponding EFH page 5-29
- PA Engineering Spreadsheets index and corresponding EFH page 5-30
- PA Fact Sheets index and corresponding EFH page 5-31 (these Fact Sheets have also been given EFH page numbers so that the hard-copies can be filed in one location)

FILING:

All revisions have been added to the web-files; however, for those maintaining a hard-copy:

Download and insert the new EFH Chapter 7, and also retain the old Chapter 7.
Remove EFH pages 2-42.1&2.

Replace EFH page 5-27b (dated 10/25/06) with 5-27 (April 1, 2008)

Replace EFH page 5-28 (dated 2/13/06) with 5-28 (April 1, 2008)

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Replace EFH page 5-29 (dated 8/30/04) with 5-29 (April 1, 2008)
Replace EFH page 5-30 (dated 4/25/07) with 5-30 (April 1, 2008)
Replace EFH page 5-31 (dated 4/16/04) with 5-31 (April 1, 2008)
Add EFH pages 5-31a thru 31c (dated April 1, 2008) after page 5-31

If you have any questions regarding these materials, please contact the Assistant State Conservation Engineer, Hosea Latshaw.

CRAIG R. DERICKSON
State Conservationist

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Natural Resources Conservation Service
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Sept. 18, 2007

ENGINEERING FIELD HANDBOOK NOTICE PA-30

A new Construction Guide, PA-2, Well Decommissioning, along with 6 new Standard Drawings, PA-076 thru -081, have been added to the Engineering Shared drive. CG PA-2 provides detailed instructions for decommissioning wells, while the standard drawings supplement the guide (as Figures 1-6) and can be used individually as construction plans.

As with all engineering drawings, spreadsheets, etc., if you do not have access to the shared engineering drive, but need and have the authority level to utilize these drawings, contact your area engineer.

FILING:

Make a pen & ink change to EFH page 5-27b (dated 10/25/06) to add PA076 – 081 (Well Decommissioning, date 9/07, size "S") —

Make a pen & ink change to EFH page 5-29 (dated 8/30/04) to add CG PA-2 (location EFH 12-50.1-12, date 9/07).

Insert CG PA-2 (pages EFH 12-50.1 thru .12) after EFH page 12-50.

If you have any questions regarding these materials, please contact the State Project Engineer, Alan Wood.

/s/ Anne Anderson, Acting

CRAIG R. DERICKSON
State Conservationist

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Natural Resources Conservation Service
One Credit Union Place, Suite 340
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June 7, 2007

ENGINEERING FIELD HANDBOOK NOTICE PA-29

Two standard drawings have been revised and placed on the shared "engineering drive", under the folder "AutoCADD Drawings", in the subfolder "PA Standard Drawings_June_2007" :

- PA-064; changes to format and dimensions along well.
- PA-071; changes to waterstop and addition of floor steel table.

As with all engineering drawings, spreadsheets, etc., if you do not have access to the shared engineering drive, but need and have the authority level to utilize these drawings, contact your area engineer.

FILING: Make a pen & ink change to EFH pages 5-27 a & b (dated 10/25/06) that the new dates for PA-064 and -071 are 6/07 and 5/07, respectively.

If you have any questions regarding these drawings, please contact the State Project Engineer, Alan Wood.

A handwritten signature in black ink, reading "Craig R. Derickson".

CRAIG R. DERICKSON
State Conservationist

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**Natural Resources
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**Suite 340
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April 25, 2007

ENGINEERING FIELD HANDBOOK NOTICE PA-28

A new spreadsheet has been added to the PA Standard Spreadsheets; PA-SS-007, Watering Systems (Pressurized). It is available in the Shared Engineering drive, in the "Excel Spreadsheets" folder. Like the other spreadsheets, this software has been developed to assist with the design of various conservation practices.

Attached is the revised page 5-30 (4/25/07) of the EFH which adds this software to the list of PA Standard Spreadsheets. Remove any previous versions of this page.

Please be reminded that the design of a specific practice requires approval by the person with appropriate engineering job approval authority.

Michael Derickson acting
CRAIG R. DERICKSON
State Conservationist

Enclosure

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United States Department of Agriculture



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March 19, 2007

ENGINEERING FIELD HANDBOOK NOTICE PA-27

ACTION: Please make a pen/ink change to EFH page 5-28 (Index of PA Design Guides) changing the date of PA-5 Wastewater Treatment Strip Design to 3/07.

BACKGROUND: A new PA-5 Design Guide for Wastewater Treatment Strips has recently been issued. Old versions of the Wastewater Treatment Strip Design Guide should be removed and discarded. The most current Design Guide PA-3 covering "Use of STD. DRWGS. PA-051 & PA 052 – Wooden Walls" still exists and is not to be discarded.

If you have any questions please contact Hosea Latshaw.

A handwritten signature in black ink, appearing to read "Craig R. Derickson".

CRAIG R. DERICKSON
State Conservationist

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**Suite 340
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October 25, 2006

ENGINEERING FIELD HANDBOOK NOTICE PA-26

Several new standard drawings have been prepared and placed on the shared "engineering drive", under the folder "AutoCADD Drawings", in the subfolder "PA Standard Drawings_Oct_2006"

The new drawings include:

- PA-029 thru -030; slat stream crossings.
- PA-031 thru -034; riprap stream crossings.
- PA -073 thru -075; sinkhole rehabilitation.

A spreadsheet, PA-SS-006, was also prepared to help design stream crossings, and is available on the shared engineering drive under the folder "Excel Spreadsheets".

FILING: Remove EFH pages 5-27, 5-27a, and 5-30, and replace with the attached pages 5-27, 5-27a & b, and 5-30 (dated 10/25/06).

If you have any questions regarding these drawings, please contact the State Project Engineer, Alan Wood.

A handwritten signature in black ink, reading "Craig R. Derickson".

CRAIG R. DERICKSON
State Conservationist

Enclosures

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One Credit Union Place
Harrisburg, PA 17110**

February 16, 2006

ENGINEERING FIELD HANDBOOK NOTICE PA-25

Several standard drawings have been revised, and some deleted. Therefore EFH pages 5-27, 5-27a, and -27b have been revised. All standard drawings, including the new ones, are available on the shared "engineering drive", under the folder "AutoCADD Drawings", in the subfolder "PA Standard Drawings_Feb 2006" (except PA-006 & -015 which exist only as hard copies and will be put on e-files at a later date).

The changes include:

- PA-017 thru -028 have been replaced with a reorganized sequence of wall drawings.
- PA-029 thru -034, -060, and -062 have been deleted.
- The extensions .4, .6, & .8 on PA-057 thru -059 have been changed to A, B, & C respectively.
- "Stand-alone" options of drawings are listed with letter extensions (e.g. A, B,...); drawings that require all sheets in a set to be used have only the number listed.

FILING: Remove EFH pages 5-27, 5-27a, and 5-27b (with previous dates) and replace with the attached pages 5-27 and 5-27a (dated 2/16/06). Discard any hard copies of previous versions of Standard Drawings PA-17 thru -34, PA-057 thru -60, and PA-062.

In addition, PA Design Guides 6 thru 8, which are to be used in the design of 8-foot reinforced concrete walls (on Standard Drawing PA-028), are also now available on the shared engineering drive. (These were added to the PA Design Guides index via EFH Notice 24.)

If you have any questions regarding these drawings, please contact the State Project Engineer, Alan Wood.

/S/ Gary Smith, Acting

ROBIN E. HEARD
State Conservationist

Enclosures

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**Suite 340
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February 13, 2006

ENGINEERING FIELD HANDBOOK NOTICE PA-24

Several design guides have been provided over the past few years; however some had duplicate numbers. In addition, some have been revised and new ones added.

Therefore, EFH page 5-28 has been revised as follows:

- PA-3; new title
- PA-4; new – sent out under AWMFH Notice PA-13
- PA-5; was also originally PA-3 (vegetated filter area design), so was given a new number and title
- PA-6 thru -8; new – will be sent out shortly with revised standard drawings

Remove page 5-28, dated 8/30/04 and replace with the attached new page 5-28, dated 2/13/06.

ROBIN E HEARD /s/
State Conservationist

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November 2, 2004

ENGINEERING FIELD HANDBOOK NOTICE PA-23

Fact Sheet NRCS-PA-ENG-FS-03, is being re-issued to provide additional emphasis on safety with regard to gravity pipe manure transfer systems. It should be provided to operators of such systems during the planning and design phases of these systems, and to those who already have gravity transfer lines to help with operation and maintenance.

Please make a "pen and ink" change to the listing of Fact Sheets on page 5-31 of the EFH to reflect that the revised Fact Sheet #3 is dated 9/04. Also, please destroy the previous version of this Fact Sheet.

ROBIN E HEARD
State Conservationist

Enclosure

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August 30, 2004

ENGINEERING FIELD HANDBOOK NOTICE PA-22

Several design and construction guides have been provided over the past few years; however no listing was made to catalog them. Over the same period, 3 new standard drawings were made available, but not included on the EFH list of standard drawings. To accommodate these and future documents, the following EFH pages are being revised as follows:

EFH page 5-28 -- make a pen and ink change to be page 5-27a. (We expect in the near future to be revising several of the standard drawings listed on this page and will provide a new page at that time.)

EFH page 5-29 -- remove the existing page and replace with the attached page 5-27b. (This new page includes new standard drawings PA-070, 071, 072. It also notes that PA-062 should be deleted, and that the titles of PA-061 and PA-065 have changed.)

Insert the attached new pages 5-28 & 29, which list the design and construction guides.

ROBIN E HEARD /s/
State Conservationist

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July 8, 2004

ENGINEERING FIELD HANDBOOK NOTICE PA-21

This notice corrects the information distributed by ENGINEERING FIELD HANDBOOK Notice PA-20 (July 2, 2004). The Mono-sloped Roof Structure drawing should have been identified as Standard Drawing PA-072 (not PA-070).

In addition by way of this notice, two new standard drawings, PA-070 (Shallow Well Pump Watering System), and PA-071 (Deep Well Pump Watering System) are being issued.

All three of these new drawings can be obtained from the shared folder at "eng on harrisbuc001/AUTO CAD Drawings/PA Standard Drawings". Please contact your technical center for assistance in their application.

Until an updated list of PA standard drawings is issued, make a "pen & ink" addition of these drawings to the list on EFH page 5-29.

ROBIN E HEARD
State Conservationist

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July 2, 2004

ENGINEERING FIELD HANDBOOK NOTICE PA-20

By way of this notice, new standard drawing, PA-070 Mono-sloped Roof Structure, is being issued. It can be obtained from the shared folder at "eng on harrisbuc001/AUTO CAD Drawings/Roofs/PA-070". Please contact your technical center for assistance in its application.

Until an updated list of PA standard drawings is issued, make a "pen & ink" addition of this drawing to the list on EFH page 5-29.

ROBIN E HEARD /s/
State Conservationist

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One Credit Union Place
Harrisburg, PA 17110-2993

November 29, 1996

ENGINEERING FIELD HANDBOOK NOTICE PA-9.

Enclosed is a revised page 5-28 of the EFH. This page updates the listing of standard PA-NRCS drawings to include the addition of new drawings PA-051 through PA-054. These new standard drawings were provided to the area offices and can be requested from them if needed.

The list should be filed in Chapter 5 of the EFH, replacing page 5-28, dated 6/30/95.

Please be reminded that the use of standard drawings for a specific practice requires approval by a person with appropriate engineering approval authority.

JANET L. OERTLY
State Conservationist

Enclosure

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Suite 340
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June 30, 1995

ENGINEERING FIELD HANDBOOK NOTICE PA-8

Enclosed is a revised page 5-28 of the EFH. This page updates the listing of standard PA-NRCS drawings to include the addition of new drawings PA-049 (Variable Height Wooden Closure) and PA-050 (Project Identification Sign). These two standard drawings are being provided to the area offices and can be requested from them if needed. Please be reminded that the use of standard drawings for a specific practice requires approval by a person with appropriate engineering approval authority.

JANET L. OERTLY
State Conservationist

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Suite 340
One Credit Union Place
Harrisburg, PA 17110-2993

March 13, 1995

ENGINEERING FIELD HANDBOOK NOTICE PA-7

Enclosed is a revised version of standard drawing PA-048-558, which was originally distributed with EFH Notice PA-6. After that distribution, several mistakes were identified which are corrected in the new version (3-10-95). Please discard any copies of the original version.

We are sorry for the extra "paper shuffle". We have taken steps to improve our quality control of future drawings and reduce such mistakes.

WILLIAM HUNT
Acting STC

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February 8, 1995

ENGINEERING FIELD HANDBOOK NOTICE PA-6

Enclosed is a revised page 5-28 of the EFH. This page updates the listing of standard PA-NRCS drawings to include the addition of new drawings PA-046 thru PA-048-558. Note also that PA-045 has been revised (4/93) to include PA-045H.

PA-048-558 is being provided with this notice. The other drawings have been provided to the area offices and can be requested from them if needed. Please be reminded that the use of standard drawings for a specific practice requires approval by a person with appropriate engineering approval authority.

WILLIAM HUNT
Acting STC

Enclosures

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Suite 340
One Credit Union Place
Harrisburg, PA 17110-2993

May 5, 1993

ENGINEERING FIELD HANDBOOK NOTICE PA-5

Enclosed is a copy of the new standard drawing, PA-045H. This drawing is for a concrete hopper base, with 6-inch walls, which will not be buried deeper than 16 feet. The base in PA-045G (with 9-inch walls) can continue to be used for depths up to 30 feet. PA-045G has been revised however to allow for designer input of the floor slope and to indicate both a maximum and minimum height. PA-045A has also been revised to show the addition of PA-045H.

The drawings are being provided to each area office and should be requested as needed from them. Please be reminded that the use of standard drawings for a specific practice, requires approval by the person with appropriate engineering job approval authority.

RICHARD N. DUNCAN
State Conservationist

Enclosures (area offices only)

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March 8, 1993

ENGINEERING FIELD HANDBOOK NOTICE PA-4

Enclosed is a revised page 5-28 of the EFH. This page updates the listing of standard PA-SCS drawings to include the addition of new standard drawings PA-043 thru 045. Note also that PA-040 has been revised as of 10/92.

The drawings are being provided to each area office and should be requested as needed from them. Please be reminded that the use of standard drawings for a specific practice requires approval by the person with appropriate engineering job approval authority.

RICHARD N. DUNCAH
State Conservationist

Enclosure

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United States
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P. O. Box 985
Federal Square Station
Harrisburg, Pennsylvania 17108

April 1, 1981

ENGINEERING FIELD MANUAL NOTICE PA-3

The enclosed supplemental pages are to be added to the Engineering Field Manual, Chapter 2, following Page 2-10.4:

Pages 2-10.5 and 2-10.6

These pages list hydrologic soil groups for Pennsylvania soils.

Additional copies are available from the state office.

Graham T. Munkittrick
State Conservationist

Enclosures

DIST:
All Holders of Engineering Field Manual.



The Soil Conservation Service
is an agency of the
Department of Agriculture

SCS-AS-1
10-79

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Box 985 Federal Square Station, Harrisburg, Pennsylvania 17108

July 3, 1979

ENGINEERING FIELD MANUAL NOTICE-PA-2

The following supplemental pages are to be added to the Engineering Field Manual, Chapter 2, immediately following Page 2-76:

Pages 2-76.01 through 2-76.06

Pages 2-76.07 through 2-76.15

Both sets of these pages are Supplements to Exhibit 2-10 presently in the manual. The first set gives peak rates of runoff for Curve Numbers 95 and 100 for drainage areas from 5 acres to 2,000 acres. The second set gives peak rates of runoff for Curve Numbers 60 through 100 for drainage areas from 1 acre to 5 acres.

Additional copies of this notice are available from the State Office.



Graham T. Munkittrick **Acting**
State Conservationist

Attachment

All Holders of the Engineering
Field Manual



UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Box 985 Federal Square Station, Harrisburg, Pennsylvania 17108

March 14, 1979

ENGINEERING FIELD MANUAL NOTICE - PA-1

The attached 24-hour rainfall data should be inserted in Chapter 2 of the Engineering Field Manual following Page 2-50. These sheets replace similar sheets distributed in March 1970. The earlier version of the rainfall data sheets, which did not include the 100-year frequency 24-hour rainfall, should be removed from the Engineering Field Manual.

 
Graham T. Munkittrick
State Conservationist

Attachment

