



Natural Resources
Conservation Service

State Office
PO Box 1458
Bismarck, ND
58502-1458
Voice 701.530.2000
Fax 888.813.7556

October 5, 2017

**National Engineering Manual (Fourth Ed.)
210-V, Amendment ND-49**

SUBJECT: ENG – UPDATES TO THE NATIONAL ENGINEERING MANUAL (NEM), ND HYDROLOGY MANUAL, AND ND IRRIGATION

Purpose: This amendment provides updated North Dakota NRCS policy in regards to maintenance of hardcopy National Engineering Manual binders in ND Field Offices, content of the ND Hydrology Manual, and use of the ND Irrigation Guide. It also provides instructions to delete ND Amendment 512-Subpart D- Evaluation of Construction Materials and ND Amendment Part 523- Irrigation.

Effective Date: This amendment is effective when received.

National Engineering Manual

Field Offices in North Dakota have historically been required to maintain a hardcopy of the NEM (GM Title 210) with North Dakota Amendments. Updates to the manual were traditionally sent out in hardcopy; national language on white paper and ND amendments on green. At this point in time, the full NEM is in electronic form as are all state amendments, on the ND NRCS engineering website at:

<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/nd/technical/engineering/?cid=stelprdb1269591> On that basis, it has been determined that hardcopy versions of the manual are no longer required to be maintained in Field Offices. That item will be removed from the FO QAR checklist, and amendments will no longer be mailed out in hardcopy. One current copy should be maintained at each Area Office, and the State Office. Note that if a FO chooses to voluntarily maintain a hardcopy version of the manual, NHQ has recently issued an update to the entire NEM so it will be necessary to print and replace all of the national sections. Please dispose of any manuals that are not current, to avoid confusion.

Delete the ND Amendment to Part 512-Subpart D- Inspection of Construction Work and the ND Amendment to Part 523- Irrigation as both have been deemed obsolete.

ND Irrigation Guide

The ND Irrigation Guide should no longer be utilized as a technical reference. Please dispose of this reference, or clearly mark it as archived information. Current replacement technical guidance sources are listed below, as well as referenced in applicable conservation practice standards and planning guides.

- Irrigation suitability of individual soils – ND SWC MapService (GIS based display of information from eFOTG-Section I- Soils- Irrigation Guide)
- Salinity – USDA Agricultural Handbook No. 60 “Diagnosis and Improvement of Saline and Alkali Soils” (original reference for section in Irrigation Guide)

- Peak Consumptive Use – NRCS Irrigation Water Requirements (IWR) software, in conjunction with database files developed for ND counties and crops.
- System Efficiencies/Avg Annual Water Use – NRCS Farm Irrigation Rating Index (FIRI)
- Available Water Holding Capacity – Web Soil Survey
- Crop Rooting Depths – NEH Part 652, Irrigation Guide or local information
- General Information/Education – NEH Part 652, Irrigation Guide

ND Hydrology Manual

Some individual chapters of this manual are no longer up to date, technically acceptable references. In the future, the manual will be discontinued and replaced with individual ND NEH Amendments and/or Technical Notes, however for the interim period please use the guidance below.

- Chapter 1 – Discontinue use. Reference ND Supplement to NEH Part 650 (EFH) Chapter 2 for current rainfall distributions. Reference TR60 or PS378 for principal spillway hydrologic criteria.
- Chapter 2 – Discontinue use. Reference Web Soil Survey for hydrologic soil group data.
- Chapter 3 - Discontinue use. Reference ND Supplement to NEH Part 650 (EFH) Chapter 2 for runoff curve number computation methodology.
- Chapter 4 - Discontinue use. Reference ND Supplement to NEH Part 650 (EFH) Chapter 2 for time of concentration computation methodology.
- Chapter 5 - Discontinue use. Reference ND Supplement to NEH Part 650 (EFH) Chapter 2 for peak discharge computation on drainage areas less than 2,000 acres. Refer to USGS ND StreamStats for larger drainage areas where a stream channel is present and the DA falls within the regional parameters, or TR-55 when out of the range of USGS ND StreamStats.
- Chapter 6 – Data in this chapter remains the best available at the current time, however computation methodologies have been replaced with TR20, SITES, and/or WinDam.
- Chapter 7 – Data in this chapter remains the best available at the current time.
- Chapter 8 - Data in this chapter remains the best available at the current time.

Hardcopy Filing Instructions:

Print on green paper, and file copies of Amendment ND-49 at the front of the NEM and at the front of the ND Hydrology Manual. Dispose of the ND Irrigation Guide, or clearly mark as archived material. Delete the ND Amendment to Part 512-Subpart D- Inspection of Construction Work and the ND Amendment to Part 523- Irrigation as both have been deemed obsolete.



CHRISTI FISHER
State Conservation Engineer

DIST: NEM



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December 5, 2016

**National Engineering Manual (Second Ed.)
210-V, Amendment ND-48**

**SUBJECT: ENG – UPDATES TO THE NATIONAL ENGINEERING MANUAL
(NEM)**

Purpose: This amendment provides updated North Dakota NRCS policy in regards to Parts 503- Safety, 505-Non-NRCS Engineering Services, and 512-Subpart C- Evaluation of Construction Materials. .

Effective Date: This amendment is effective when received.

Filing Instructions: Remove previous “green sheet” ND Amendments to Parts 503 and 505 in their entirety, and place new “green sheet” ND Amendments following the national section for each of those parts. For Part 512, remove only the previous portion of Subpart C from the existing ND Amendment and replace with the new.

A handwritten signature in blue ink, appearing to read "Christi Fisher".

CHRISTI FISHER
State Conservation Engineer

Attachments

DIST: NEM

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October 10, 2014

**National Engineering Manual (Second Ed.)
210-V, Amendment ND-47**

**SUBJECT: ENG. - UPDATES TO THE NATIONAL ENGINEERING MANUAL
(NEM)**

Purpose: This amendment provides updated North Dakota NRCS policy in regards to Parts 501- Authorizations, 505-Non-NRCS Engineering Services, 510-Planning, 511-Design, 540-Field Surveys, and 541-Drafting and Drawings. This amendment supersedes all previously issued ND Amendments to these Parts.

Effective Date: This amendment is effective when received.

Filing Instructions: Remove previous "green sheet" ND Amendments to Parts 501 and 541. Place new "green sheet" ND Amendments following the national section in each of parts 501, 505, 510, 511, 540, and 541.

CHRISTI FISHER
State Conservation Engineer

Attachments

DIST: NEM



Natural Resources Conservation Service
P.O. Box 1458
Bismarck, ND 58502-1458

March 1, 2010

**National Engineering Manual (Second Ed.)
210-V, Amendment ND-46**

**SUBJECT: ENG – REVIEW AND APPROVAL – COMPLIANCE OF ENGINEERING
WORK WITH LAWS AND REGULATIONS**

Purpose: This amendment updates policies and procedures for the approving and sealing of engineering plans within the NRCS in North Dakota as issued in Amendment ND-45 dated December 2008.

Effective Date: This amendment is effective when received.

Filing Instructions: Remove Page ND501-12(7) dated December 2008 and Insert Page ND501-12(7) dated March 2010. All other portions of Amendment ND-45 remain in effect.

A handwritten signature in black ink, appearing to read "Dennis W. Reep".

DENNIS W. REEP
State Conservation Engineer

DIST: NEM



United States Department of Agriculture



Natural Resources Conservation Service
P.O. Box 1458
Bismarck, ND 58502-1458

December 22, 2008

NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-45

SUBJECT: ENG – UPDATES TO THE NATIONAL ENGINEERING MANUAL (NEM)

Purpose: This amendment provides updated policy on the delegation of engineering job approval authority for staff involved in the planning, design, and construction inspection of engineering practices.

Effective Date: This amendment is effective upon receipt.

Filing Instructions: Remove pages ND501-12(1) through ND501-12(3) dated April 1993 and pages ND501-12(4) through ND501-12(14) dated October 1986. Insert pages ND501-12(1) through ND501-12(19) dated December 2008.

A handwritten signature in cursive script, reading "Wesley J. Wiedenmeyer".

WESLEY J. WIEDENMEYER
State Conservation Engineer

Attachments

DIST: AO





Natural Resources Conservation Service
P.O. Box 1458
Bismarck, ND 58502-1458

November 23, 2005

**National Engineering Manual (Second Ed.)
210-V, Amendment ND-44**

SUBJECT: ENG – UPDATE TO THE NATIONAL ENGINEERING MANUAL (NEM)

Purpose: This amendment provides guidance on the filing of the North Dakota One-Call Handbook (2005-2006 Edition). It shall serve as a reference document to Section 503 – Safety in the NEM. The handbook should be filed behind Page 503(2) of the NEM in a protective page cover so it is readily available for use.

Copies of the handbook were provided several months ago at area-wide meetings. However, no filing instructions were provided at that time.

If you do not have a copy of the 2005-2006 North Dakota One-Call Handbook, one can be obtained from the North Dakota One-Call office at (701) 258-6615. An email request for a copy can also be sent to Mr. Don Nett, Director of Education and Public Relations, at nd1call@bis.midco.net.

A handwritten signature in cursive script that reads "Wesley J. Wiedenmeyer".

WESLEY J. WIEDENMEYER
State Conservation Engineer

DIST: NEM

United States Department of Agriculture



Natural Resources Conservation Service
P.O. Box 1458
Bismarck, ND 58502-1458

May 19, 2003

**National Engineering Manual (Second Ed.)
210-V, Amendment ND-43**

SUBJECT: ENG – UPDATES TO THE NATIONAL ENGINEERING MANUAL (NEM)

Purpose: This amendment transmits the North Dakota One-Call Handbook (2003-2004 Edition). It shall serve as a reference document to Part 503 – Safety in the NEM.

Filing Instructions: The handbook should be filed behind page 503-2 of the NEM in a protective page cover so it is readily available for use.

Additional copies of the handbook can be obtained from the North Dakota One-Call office at 701-258-6615.

A handwritten signature in cursive script, appearing to read "Wesley J. Wiedenmeyer".

WESLEY J. WIEDENMEYER
State Conservation Engineer

Enclosure

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July 17, 2000

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-42**

SUBJECT: ENG - UPDATES TO THE NATIONAL ENGINEERING MANUAL

Purpose: This amendment transmits National Amendment No. 26. It includes updated parts of the National Engineering Manual to address changes in job classification limits for Practice 430, Irrigation Water Conveyance, and Practice 533, Pumping Plant for Water Control.

Effective Date: This amendment is effective upon receipt.

Filing Instructions: Refer to the attached Amendment No. 26.

WESLEY J. WIEDENMEYER
State Conservation Engineer

Attachments

DIST: NEM



NATIONAL ENGINEERING MANUAL (SECOND EDITION)
210-V
AMENDMENT NO. 26

SUBJECT: ENG - ENGINEERING JOB APPROVAL AUTHORITY

Purpose. To distribute copies of revised Exhibit 1 in Part 501 Subpart A.

Effective Date. This amendment is effective upon receipt.

Exhibit 1 in Part 501 Subpart A is revised to change the job classification limits for Practice 430, Irrigation Water Conveyance, and Practice 533, Pumping Plant for Water Control. The pipeline capacity limits are increased for lower pressure pipelines and the static head limits for turbine pumps are increased to be comparable with limits in previous NEM policies.

These revisions do not require changes in State Job Approval Charts prepared in accordance with current NEM policy. State Conservation Engineers can lower or add additional limitations in delegating approval authorities within their States to meet local needs.

Filing Instructions

Remove Pages

501-9 thru 501-12
(dated October 1995)

Insert Pages

501-9 thru 501-12
(dated November 1999)

RICHARD VAN KLAVEREN
Director, Conservation Engineering Division

Enclosures

DIST: NEM



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Bismarck State Office
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January 25, 2000

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-41**

SUBJECT: ENG - UPDATES TO THE NATIONAL ENGINEERING MANUAL

Purpose: This amendment transmits National Amendment No. 25. It includes updated parts of the National Engineering Manual.

Effective Date: This amendment is effective upon receipt.

Filing Instructions: Refer to the attached Amendment No. 25.

A handwritten signature in cursive script, appearing to read "Wesley J. Wiedenmeyer".

WESLEY J. WIEDENMEYER
State Conservation Engineer

Attachments

DIST: NEM



November 19, 1999

NATIONAL ENGINEERING MANUAL (SECOND EDITION)
210-V
AMENDMENT NO. 25

SUBJECT: ENG – UPDATED NATIONAL ENGINEERING MANUAL PART 531,
GEOLOGY

Purpose. To distribute copies of the updated National Engineering Manual (NEM), Part 531, Geology.

Effective Date. This amendment is effective upon receipt.

This is a complete revision to NEM Part 531, Geology. The revision reflects the many changes and new direction the agency has undergone in recent years.

Filing Instructions

Remove: Current version of Part 531

Insert: Attached version behind the 531
Geology tab

RICHARD VAN KLAVEREN, P.E.
Director
Conservation Engineering Division

*NEM out
notice*

Attachments

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July 20, 1998

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-40**

SUBJECT: ENG - UPDATED PARTS OF THE NATIONAL ENGINEERING MANUAL

Purpose: This amendment transmits National Amendment No. 24. It includes updated Parts of the National Engineering Manual.

Effective Date: This amendment is effective upon receipt.

Filing Instructions: Refer to the attached Amendment No. 24.

WESLEY J. WIEDENMEYER
State Conservation Engineer

Attachments



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April 23, 1998

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-39**

SUBJECT: ENG - SAFETY

Purpose: This amendment transmits current information on the North Dakota One-Call Excavation Notice System.

Effective Date: This amendment is effective upon receipt.

Filing Instructions: Remove pages ND503-2(1) through ND503-2(3), dated March 1993, and insert pages ND503-2(1) through ND503-2(12), dated April 1998.

WESLEY J. WIEDENMEYER
State Conservation Engineer

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March 18, 1998

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-38**

SUBJECT: ENG - NEW TABS FOR THE NATIONAL ENGINEERING MANUAL

Purpose: This amendment transmits new tabs for the National Engineering Manual (NEM). This new set of tabs reflects the changes in the PART names and numbering system.

Effective Date: This amendment is effective upon receipt.

Filing Instructions: **DISCARD** the old tabs, and **INSERT** the enclosed new tabs in the NEM.

WESLEY J. WIEDENMEYER
State Conservation Engineer

Enclosure



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February 23, 1998

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-37**

SUBJECT: ENG - UPDATED PARTS OF THE NATIONAL ENGINEERING MANUAL

Purpose: This amendment transmits National Amendment No. 23. It includes updated Parts of the National Engineering Manual.

Effective Date: This amendment is effective upon receipt.

Filing Instructions: Refer to the attached Amendment No. 23.

A handwritten signature in cursive script, appearing to read "Wesley J. Wiedenmeyer".

WESLEY J. WIEDENMEYER
State Conservation Engineer

Attachment



October 20, 1997

**NATIONAL ENGINEERING MANUAL (SECOND EDITION)
210 - V
AMENDMENT NO. 23**

SUBJECT: ENG - UPDATED PARTS OF THE NATIONAL ENGINEERING MANUAL

Purpose. To distribute copies of the new table of contents and updated Parts of the National Engineering Manual (NEM). These parts are numbered using the revised organization of the NEM.

Effective Date: This amendment is effective upon receipt.

Many of the changes in this material reflect the impact of reorganization. Some technical changes were made which include the work of teams where members of State staffs may have served.

Filing Instructions

Remove Pages

Table of Contents (NEM)
i
(dated Nov. 1991)
Table of Contents
Subchapter A
iii thru vi
(dated Mar. 1991)
500-1 thru 500-2
(dated Nov. 1991)

505-1 thru 505-21
(dated July 1989)
506-1 thru 506-5
(various dates)
Table of Contents
Subchapter B
i thru ii
(dated July 1980)
510-1 thru 510-3
(dated Aug. 1984)

Insert Pages

Table of Contents (NEM)
i thru ii
(dated Sept. 1997)
Table of Contents
Subchapter A
iii thru vii
dated Sept. 1997)
500-1 thru 500-2
(dated Sept. 1997)
503-7 thru 503-13
(dated Sept. 1997)
505-1 thru 505-27
dated Sept. 1997)
506-1 thru 506-6
(dated Sept. 1997)
Table of Contents
Subchapter B
i thru ii
(dated Sept. 1997)
510-1 thru 510-5
(dated Sept. 1997)

DIST: NEH PARTS 650-659 and NEM

Table of Contents
 Subchapter C
 i thru ii
 (dated Nov. 1991)
 Table of Contents
 Subchapter D
 i thru iv
 (various dates)
 530-1 thru 530-5
 (dated July 1980)

532-1 thru 532-5
 (various dates)
 533-1 thru 533-10
 (various dates)
 Table of Contents
 Subchapter E
 i thru ii
 (dated Mar. 1991)
 542-1 thru 542-13
 (dated Aug. 1983)
 543-1 thru 543-2
 (dated July 1980)
 544-1
 (dated July 1980)

Table of Contents
 Subchapter C
 i thru ii
 (dated Sept. 1997)
 Table of Contents
 Subchapter D
 i thru iv
 (dated Sept. 1997)
 530-1 thru 530-7
 (dated Sept. 1997)
 531-23 thru 531-29
 (dated Sept. 1997)

533-1 thru 533-10
 (dated Sept. 1997)
 Table of Contents
 Subchapter E
 i thru ii
 (dated Sept. 1997)
 542-1 thru 542-6
 (dated Sept. 1997)
 543-1 thru 543-2
 (dated Sept. 1997)
 544-1 thru 544-2
 (dated Sept. 1997)



RICHARD VAN KLAVEREN, P.E.
 Director, Conservation Engineering Division



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October 26, 1995

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-36**

**SUBJECT: ENG - ENGINEERING JOB APPROVAL AUTHORITY AND NON-
NRCS ENGINEERING SERVICES**

Purpose: This amendment transmits National Amendment No. 22. It includes the revised policy on engineering job approval authority and changes to the policy regarding NRCS employees performing boundary or location surveys for legal purposes.

Effective Date: This amendment is effective when received.

Filing Instructions: Refer to attached Amendment No. 22. The North Dakota supplement to Subpart A (ND501.04) is still valid and is to be retained. This supplement should be filed after Page 501-11 transmitted with this amendment.

WESLEY J. WIEDENMEYER
State Conservation Engineer

Attachment



October 2, 1995

NATIONAL ENGINEERING MANUAL (SECOND EDITION)

210 - V

AMENDMENT NO. 22

SUBJECT: ENG - ENGINEERING JOB APPROVAL AUTHORITY AND NON-NRCS ENGINEERING SERVICES

Purpose. To distribute copies of the revised policy on engineering job approval authority and changes to the policy regarding NRCS employees performing boundary or location surveys for legal purposes.

Effective Date. October 1, 1995.

Part 501, Subpart A, is revised to reflect the new job approval authority policy which will result in the following changes.

- (1) The state conservation engineers will have approval authority for engineering jobs.
- (2) The state conservation engineers will be able to delegate Classes I-VI job approval authority.
- (3) No more than one level of review will be required. For Classes I-V, the state conservation engineer will develop review policy. For Classes VI-VIII, the Director, Conservation Engineering Division, will determine the design review capability of NRCS engineers based on demonstrated competence.
- (4) Licensed professional engineers will be delegated either Class IV or V engineering job approval authority as determined by the state conservation engineer.
- (5) The hazard potential will become a major controlling factor for Classes V-VIII engineering jobs. This will require hazard classification for all types of jobs to be incorporated into policy (NEM 503) and practice standards (NHCP). The potential hazard classification system is being revised and will group losses into four general categories: life, lifeline, property, and environmental. For example, a waste storage facility can be classified by environmental loss due to the potential for pollution of ground or surface water as high hazard and thereby become Class VII.

Vertical lines were omitted because the changes were extensive. Exhibits 1 and 2 are revised.

Part 505.13 (b)(1), Subpart B, of NRCS policy regarding NRCS employees performing boundary or location surveys for legal purposes was amended.

DIST: NEM

Filing Instructions

Remove Pages

501-1 thru 501-12
(various dates)
505-8a & 8b
(dated July 1989)

Insert Pages

501-1 thru 501-12
(dated October 1995)
505-8a & 8b
(dated October 1995)



ROBERT R. SHAW
Director, Conservation
Engineering Division

Enclosures



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P. O. Box 1458
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58502-1458

June 26, 1995

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-35**

SUBJECT: ENG - LIST OF REFERENCE SPECIFICATIONS

Purpose: This amendment transmits National Amendment No. 21, List of Reference Specifications, Part 542, Subpart C.

Effective Date: This amendment is effective when received.

Filing Instructions: Refer to attached Amendment No. 21.

WESLEY J. WIEDENMEYER
State Conservation Engineer

Attachment



United States
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P.O. Box 2890
Washington, D.C.
20013

JUN 5 1995

NATIONAL ENGINEERING MANUAL (SECOND EDITION)
210-V
AMENDMENT NO. 21

SUBJECT: ENG - LIST OF REFERENCE SPECIFICATIONS

Purpose. To update procedures.

Effective Date. This amendment is effective upon receipt.

Explanation of Changes. This amendment updates the list of reference specifications included in the National Engineering Manual.

RICHARD L. DUESTERHAUS
Deputy Chief for Soil Science
and Resource Assessment

Enclosure

Filing Instructions

Remove Pages
542-5 thru 542-19
(dated October 1987)

Insert Pages
542-5 thru 542-13
(dated April 1995)

DIST: NEM



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P. O. Box 1458
Bismarck, ND
58502-1458

May 8, 1995

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-34**

SUBJECT: ENG - DRAFTING

Purpose: This amendment transmits National Amendment No. 20 to the National Engineering Manual, revising Part 541.

Effective Date: This amendment is effective when received.

Filing Instructions: Refer to attached Amendment No. 20.

WESLEY J. WIEDENMEYER
State Conservation Engineer

Attachment



United States
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P. O. Box 2890
Washington, DC
20013

April 20, 1995

NATIONAL ENGINEERING MANUAL (SECOND EDITION)
210-V
AMENDMENT NO. 20

SUBJECT: ENG - DRAFTING

Purpose. To distribute copies of the revised policy on drafting.

Effective Date. This amendment is effective upon receipt.

Part 541 is revised to accommodate the use of computer-aided drafting (CAD), and incorporate standards established in Technical Release No. 73 issued in January 1989. Standard title blocks are also revised to show the new Agency name.

Changes are indicated by vertical lines in the outside margins.

Filing Instructions

Remove Pages

541-1 thru 541-6
(dated July 1980)

Insert Pages

541-1 thru 541-10
(dated Jan 1995)

RICHARD L. DUESTERHAUS
Deputy Chief for Soil Science & Resource Assessment

Enclosure

Dist: NEM



United States
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P.O. Box 1458
Bismarck, ND
58502

March 4, 1993

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-33**

SUBJECT: ENG - SAFETY

Purpose: This amendment transmits current information on the names, addresses, and phone numbers of the responsible individuals for missile cables in North Dakota.

Effective Date: This amendment is effective when received.

Filing Instructions: Remove pages ND503-2(1) and ND503-2(2), dated March 1991, and insert pages ND503-2(1) and ND503-2(2), dated March 1993.

**WESLEY J. WIEDENMEYER
State Conservation Engineer**

Attachment



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



United States
Department of
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P.O. Box 1458
Bismarck, ND
58502

April 8, 1992

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-32**

SUBJECT: ENG - REVIEW AND APPROVAL - JOB APPROVAL AUTHORITY

Purpose: Maintenance of the job approval documentation file will make the annual review of job approval authority an easier task for the area engineering staff and will provide each individual with a design example for review and for use in the training of others. This documentation folder will also be available for review when an individual transfers between areas, or out of state. The documentation will allow the area engineer to quickly review the skill level, training needs, and job approval levels of new staff.

Effective Date: This amendment is effective when received.

Filing Instructions: Remove pages ND501-12(1) through ND501-12(4), dated October 1986, and insert ND501-12(1) through ND501-12(4), dated April 1992. (Note there were no changes made on page ND501-12(4); therefore, the amendment number and date will remain the same.)

WESLEY J. WIEDENMEYER
State Conservation Engineer

Attachment



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

AN EQUAL OPPORTUNITY EMPLOYER

SCS-AS-1
10-79



United States
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Soil
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P.O. Box 1458
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58502-1458

December 20, 1991

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-31**

**SUBJECT: ENG - SNOW SURVEY AND WATER SUPPLY FORECASTING
AND OTHER CHANGES**

Purpose: This amendment transmits National Amendment No. 19 to the National Engineering Manual. Included in the notice are Part 522 - Snow Survey and Water Supply Forecasting, and revised sections in Part 500, to include the policy statement recommended in the 1988 Engineering Management Improvement Plan.

Effective Date: This amendment is effective when received.

Filing Instructions: Refer to attached Amendment No. 19.

WESLEY J. WIEDENMEYER
State Conservation Engineer

Attachment





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P.O. Box 2890
Washington, D.C.
20013

November 18, 1991

**NATIONAL ENGINEERING MANUAL (SECOND EDITION)
210-V.
AMENDMENT NO. 19**

**SUBJECT: ENG - SNOW SURVEY AND WATER SUPPLY FORECASTING AND
OTHER CHANGES**

Purpose. This amendment includes Part 522, Snow Survey and Water Supply Forecasting and two other changes to the National Engineering Manual (NEM).

Effective Date. Effective upon receipt.

A procedure is included in Part 522 to develop a Reservoir Operations Guide for Snowmelt. Part 500 is revised to include the policy statement recommended in the 1988 Engineering Management Improvement Plan. Other editorial and minor changes are also included.

Changes and additions are indicated by vertical lines in the margin. The asterisks designate omissions.

Filing Instructions

Remove Pages

Table of Contents (NEM),
Page i
500-1
501-15
Table of Contents,
Subchapter C
Pages i and ii
None

Insert Pages

Table of Contents (NEM),
Page i
500-1, 2
501-15
Table of Contents,
Subchapter C
Pages i and ii
522-1 thru 522-11

Edgar H. Nelson
for

ROBERT R. SHAW
Deputy Chief for Technology

Enclosure

DIST: NEM



The Soil Conservation Service
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United States
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P.O. Box 1458
Bismarck, ND
58502-1458

May 2, 1991

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-30**

**SUBJECT: ENG - LIST OF REFERENCE SPECIFICATIONS, ENGINEERING
DIRECTIVES LIST, AND OTHER MISCELLANEOUS CHANGES.**

Purpose: This amendment transmits National Amendment No. 18 to the National Engineering Manual. The amendment updates the list of reference specifications, revises the method for accessing the list of engineering directives, and makes other editorial and minor changes to the National Engineering Manual (NEM).

Effective Date: This amendment is effective when received.

Filing instructions are noted on the second page of the amendment.

RONALD D. SANDO
State Conservation Engineer

Attachments



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April 5, 1991

NATIONAL ENGINEERING MANUAL (SECOND EDITION)
210-V
AMENDMENT NO. 18

SUBJECT: ENG - LIST OF REFERENCE SPECIFICATIONS, ENGINEERING
DIRECTIVES LIST, AND OTHER MISCELLANEOUS CHANGES.

Purpose. This amendment updates the list of reference specifications, revises the method for accessing the list of engineering directives, and makes other editorial and minor changes to the National Engineering Manual (NEM).

Effective Date. This amendment is effective when received.

Snow Survey and Water Supply Forecasting procedures are revised to be compatible with other procedures by revising Part 501, Subpart F and by deleting Part 522. Procedures will be included in a new National Resources Inventory and Snow Survey and Water Supply Forecasting Manual (290-V-RISS).

Part 542 is revised to update the list of reference specifications.

Part 545 is amended to provide instructions for accessing the latest list of SCS Engineering Directives. The list of engineering directives (formerly Exhibit 545.14) will no longer be printed as an exhibit in the NEM. Instead, the list is kept on the computer in the Engineering Division where it is frequently updated as new directives, amendments, or revisions are issued.

Other changes with this amendment are to correct some errors made when Amendment 17 was printed and for other minor technical changes and corrections.

Changes are indicated by vertical lines in the margin. Astericks designate omissions.

ROBERT R. SHAW
Deputy Chief for Technology

Enclosure

DIST: NEM



Filing Instructions

Remove Pages

Table of Contents (NEM)
Page i
Table of Contents, Subch. A,
Pages iii thru vii
501-1,2
501-21 thru 501-23
504-11,12
512-13,14
Table of Contents, Subch. C,
Pages (no number) and ii
522-1 thru 522-6
532-1,2
533-9,10
Table of Contents, Subch. E,
Pages i and ii
542-5 thru 542-17
545-3
545-9 thru 545-27

Insert Pages

Table of Contents (NEM)
Page i
Table of Contents, Subch. A,
Pages iii thru vi
501-1,2
501-21
504-11,12
512-13,14
Table of Contents, Subch. C,
Pages i and ii
None
532-1,2
533-9,10
Table of Contents, Subch. E,
Pages i and ii
542-5 thru 542-19
545-3
None



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P.O. Box 1458
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March 14, 1991

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-29**

SUBJECT: ENG - SAFETY

Purpose: This amendment transmits current information on the names, addresses, and phone numbers of the responsible individuals for missile cables in North Dakota. It also allows for the use of computerized databases as a required record for utility locations.

Effective Date: This amendment is effective upon receipt.

Filing Instructions: Remove Pages ND-503-2(1) and ND503-2(2) dated February 1984 and insert the attached pages dated March 1991.

RONALD D. SANDO
State Conservation Engineer

Attachment



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P.O. Box 1458
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July 20, 1990

**NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V, Amendment ND-28**

SUBJECT: ENG - SEDIMENTATION GEOLOGY

Purpose: This amendment transmits National Amendment 17 to the National Engineering Manual. The amendment clarifies policy on erosion and sedimentation investigation and reports. It also makes corrections in the Table of Contents under Special Investigations, Studies, and Reports, and under Non-SCS Engineering Services.

Effective Date: This amendment is effective upon receipt.

W. Wiedemann

for

RONALD D. SANDO
State Conservation Engineer

Enclosure





April 25, 1990

NATIONAL ENGINEERING MANUAL (SECOND EDITION)
210-V
AMENDMENT NO. 17

SUBJECT: ENG - SEDIMENTATION GEOLOGY

Purpose. This amendment clarifies policy on erosion and sedimentation investigation and reports. It also makes corrections in the Table of Contents under Special Investigations, Studies, and Reports and under NON-SCS Engineering Services.

Effective Date. This amendment is effective when received.

Subpart C of Part 504 has been amended to clarify policy on the National sedimentation study of selected reservoirs. Subpart A of Part 532 is amended to clarify policy on erosion and sedimentation investigations (particularly the role of geologists). Subpart B of Part 532 has been revised to clarify policy on sedimentation activity reports.

Corrections have been made on the Table of Contents, Subchapter A, dated July 1989.

Changes are indicated by vertical lines in the margin.

FILING INSTRUCTIONS

Remove Pages

Table of Contents, Subchapter A
Pages v and vi (dated
July 1989)
504-11 and 12 (dated Feb. 1989)
Table of Contents, Subchapter D
Pages i and ii (dated
Oct. 1986)
532-1, 2, and 3 (dated
July 1980)

Insert Pages

Table of Contents, Subchapter A
Pages v and vi, (dated
April 1990)
504-11 and 12 (dated Mar. 1990)
Table of Contents, Subchapter D
Pages i and ii (dated
Mar. 1990)
532-1, 2, 3, 4, and 5 (dated
Mar. 1990)


ROBERT R. SHAW
Deputy Chief for Technology

Enclosure





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P.O. Box 1458
Bismarck, ND
58502-1458

October 11, 1989

NATIONAL ENGINEERING MANUAL (Second Ed.)
210-VI Amendment ND-27

SUBJECT: ENG - USE OF NON-SCS RESOURCES

Purpose: This amendment transmits National Amendment 16 to the National Engineering Manual. The amendment distributes copies of the revised policy on Use of Non-SCS Engineering Services and the Memorandum of Understanding (MOU) between the Land Improvement Contractors of America (LICA) and the Soil Conservation Service (SCS).

Effective Date: This amendment is effective upon receipt.

RONALD D. SANDO
State Conservation Engineer

Enclosure





August 17, 1989

NATIONAL ENGINEERING MANUAL (SECOND EDITION)
210-V
AMENDMENT 16

SUBJECT: ENG - USE OF NON-SCS RESOURCES

Purpose. To distribute copies of the revised policy on Use of Non-SCS Engineering Services and the Memorandum of Understanding (MOU) between the Land Improvement Contractors of America (LICA) and the Soil Conservation Service (SCS).

Effective Date. This amendment is effective upon receipt.

Subparts A and B of Part 505 have been revised to provide policy on the use of documentation furnished by conservation contractors and other individuals during the installation of conservation practices. Subpart E now contains a copy of the MOU between LICA and SCS and an example letter to a contractor providing information related to the acceptance of their work.

Changes are indicated by vertical lines in the margin.

 Acting for

WILSON SCALING
Chief

Enclosure

Filing Instructions

Remove Pages
Table of Contents,
Subchapter A, General
Pages v and vi
505-1 through 505-7

Insert Pages
Table of Contents,
Subchapter A
General
Pages v and vi
505-1 through 505-8b
505-17 through 505-21

DIST: NEM





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July 13, 1989

NATIONAL ENGINEERING MANUAL (Second Ed.)
210-VI Amendment ND-26

SUBJECT: ENG - APPROVAL AUTHORITY

Purpose: This amendment transmits National Amendment 14 to the National Engineering Manual. (Pages 501-3, 4, 5, 5a, 5b, and 6.)

Effective Date: This policy is effective when received.

RONALD D. SANDO
State Conservation Engineer

Enclosure





United States
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P.O. Box 2890
Washington, D.C.
20013

June 22, 1989

NATIONAL ENGINEERING MANUAL (SECOND EDITION)
210-VI
AMENDMENT 14

SUBJECT: ENG - APPROVAL AUTHORITY

Purpose. To distribute copies of the revised policy on approval authority.

Effective Date. This amendment is effective upon receipt.

The Engineering Management Improvement Plan, August 1988, accepted by the Chief and distributed on August 23, 1988, contained Recommendation No. 5 to revise the current policy for the review of a state's delegated approval authority. The recommendation was to designate, by position, a singular responsibility for initiation of the review. The revised policy designates the Director of the Engineering Division as being responsible.

Delegated engineering approval authority assigned to each state conservation engineer is provided by the Director of the Engineering Division. The authority of the Director of the Engineering Division to initiate the review is consistent with assigning delegated authority.

Changes are indicated by vertical lines in the margin.

Filing Instructions

Remove Pages

501-3, 4, 5, 5a, 5b, and 6

Insert Pages

501-3, 4, 5, 5a, 5b, and 6

WILSON SCALING
Chief

Enclosure

DIST: NEM



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P.O. Box 1458
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58502-1458

June 12, 1989

NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V Amendment ND-25

SUBJECT: ENG - LIST OF REFERENCE SPECIFICATIONS

Purpose: This amendment transmits National Amendment 15 to
the National Engineering Manual. (Pages 542-5 thru -17)

Effective Date: This policy is effective when received.

RONALD D. SANDO
State Conservation Engineer

Enclosure





United States
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P.O. Box 2890
Washington, D.C.
20013

May 1, 1989

NATIONAL ENGINEERING MANUAL (SECOND EDITION)
210-V
AMENDMENT 15

SUBJECT: ENG - LIST OF REFERENCE SPECIFICATIONS

Purpose. This amendment updates the list of reference specifications included in the National Engineering Manual.

Effective Date. This amendment is effective when received.

ROBERT R. SHAW
Deputy Chief for Technology

Enclosure

Filing Instructions

Remove Pages
542-5 thru -19

Insert Pages
542-5 thru -17

DIST: NEM



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P.O. Box 1458
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58502-1458

June 6, 1989

NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V Amendment ND-24

SUBJECT: ENG - REVIEW AND APPROVAL - JOB APPROVAL
AUTHORITY

Purpose: This amendment transmits pages ND501-12(7) and
ND501-12(8) dated June 1989.

Effective Date: This amendment is effective upon receipt.

In Part 501 - Authorizations, Subpart A, Review and Approval, North Dakota's Engineering Job Approval Authority is listed. We have made two changes to the approval charts and these changes are all on page ND501-12(8). Under Practice Code No. 516 - Pipeline, we have added the additional pressure controlling factors. The length and diameter factors were not sufficient to meet North Dakota's needs.

Practice Code No. 378 - Pond (Excavated), was added to the chart. In the past we had no approval authority covering excavated ponds. This addition will correct the problem.

As each employee's approval authority is reviewed this year, their individual approval charts should be updated to reflect these changes in the North Dakota Job Approval Authority.

Filing Instructions: Remove pages ND501-12(7) and ND501-12(8), dated October 1986, and replace with ND501-12(7) and ND501-12(8), dated June 1989.

RONALD D. SANDO
State Conservation Engineer

Attachment





United States
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P.O. Box 1458
Bismarck, ND
58502-1458

February 9, 1988

NATIONAL ENGINEERING MANUAL (Second Ed.)
210-V Amendment ND-23

SUBJECT: ENG - LIST OF REFERENCE SPECIFICATIONS

Purpose. This amendment transmits National Amendment 13 to the National Engineering Manual.

Effective Date. This policy is effective when received.

D. James Smit for

RONALD D. SANDO
State Conservation Engineer

Attachment