

*Smith*



United States  
Department of  
Agriculture

Soil  
Conservation  
Service

693 Federal Building  
210 Walnut Street  
Des Moines, IA 50309

August 25, 1981

NATIONAL ENGINEERING MANUAL  
SUPPLEMENT 6, PARTS IA531 AND IA545

SUBJECT: Geologic Reports and USGS Maps

Purpose. This Iowa supplement transmits current Iowa policy on preparation of geologic reports and procurement of USGS maps.

Effective Date. This supplement is effective upon receipt.

Filing Instructions. Page IA531-3(3), April 1981, should be removed from the NEM and destroyed. Pages IA531-3(3), (4) and (5) should be added following page IA531-3(2). Page IA545-2(1) should be added following page 545-2.

*superceded by*

This supplement should be noted on the Iowa Supplement Tabulation Sheet. This transmittal should be destroyed when the material has been filed.

*# 17*

*William J. Brune*  
William J. Brune  
State Conservationist

Attachments

AC  
DC  
EN2  
SO



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

SUBPART A - GEOLOGIC SITE INVESTIGATIONS

IA531.12(b)

(e) The Cooperator on CO-01 or other non-project work is expected to furnish any special exploratory equipment (dozers, backhoes, and so on) needed for an adequate site investigation and not available through the Service. He is expected to provide access roads for drilling equipment where needed. The District Conservationist is responsible for notifying affected parties of these needs.

§IA531.12 Geologic Reports

The geologist is responsible for the completion of the SCS-ENG-533T, Log of Test Holes. The geologist will prepare a report giving a geologic evaluation and recommendation for each site. The field engineer is responsible for preparation of Forms SCS-ENG-35A and 35B (35C if required) and the engineer's site report prior to the start of the drilling on each site. The minimum formulation of geologic Forms SCS-ENG-35A, B and C and the site report are:

(a) Plan View SCS-ENG-35A

- Include:
- (1) Centerline of fill
  - (2) Station of Centerline
  - (3) Creek Channel
  - (4) Contour lines
  - (5) North Arrow
  - (6) Scale (Preferred 1" = 50')
  - (7) All fences
  - (8) Principal Spillway - Centerline and Alternate
  - (9) Baseline
  - (10) Creek banks (if possible)
  - (11) Outline of Emergency Spillway
  - (12) Location of Emergency Spillway Cross Sections
  - (13) Significant features, i.e. wells, power lines, gas lines, reference pins, etc.

(b) Centerline Profile SCS-ENG-35B

- Include:
- (1) Horizontal Scale (preferably 1" = 50') shown on top of sheet
  - (2) Vertical scale 1" = 10'
  - (3) Principal Spillway profile (alternates, if any)
  - (4) Tie in baseline (reference to plan view)
  - (5) Elevations - Top of dam, emergency spillway, and principal spillway
  - (6) Size and type of conduit above the title block

PART 531 - ENGINEERING GEOLOGY

IA531.12(c)

- (c) Emergency Spillway Centerline Profile and Cross Sections, SCS-ENG-35C for sites with over 10,000 cu. yds. of cut in the emergency spillway area.

- Include:
- (1) Centerline profile
  - (2) Stationing
  - (3) Location of cross sections
    - (i) Inlet
    - (ii) Control Section
    - (iii) Outlet

- (d) Engineer's Site Report IA-ENG-35

Include all pertinent information required on form:

- (1) Project Name
- (2) Site Number
- (3) Hazard Class
  - (i) Reason
- (4) Elevations
  - (i) Top of Dam
  - (ii) Emergency Spillway
  - (iii) Crest or Pool
  - (iiii) Creek Channel at Centerline of Fill
- (5) Effective Height
- (6) Estimated Storage (ac. ft.)
- (7) Job Approval Class
- (8) Purpose of Structure
- (9) Description of Structure
- (10) Size and Type of Principal Spillway
- (11) Estimated Volume of Fill
- (12) Drainage Area
  - (i) Controlled
  - (ii) Uncontrolled
  - (iii) Total
- (13) Emergency Spillway
  - (i) Bottom width
  - (ii) Depth
  - (iii) Excavation
- (14) Design Criteria Used
- (15) Special Conditions or Problems
- (16) Name and Date

IA531-3(4)

(IA210-V-(NEM), September 1981)