

Missouri LICA NEWS

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The Missouri Land Improvement Contractors Association

March/April 2006



In This Issue:

Proposed Dam Regulation Changes	1
Welcome to LICA	2
Directory Changes	2
Happy Birthday	2
With Deep Sympathy	2
What's on the Horizon for MLICA?	3
LICA Safety Insurance Program Update	3
State Cost-Share Program Update	4
Looking for Divining Rods?	6
Excavations: Hazard Recognition in Trenching and Shoring (OSHA Technical Manual - Section V, Chapter 2)	
Introductions	5
Definitions	5
Overview: Soil Mechanics	7
Determination of Soil Type	8

Proposed Dam Regulation Changes



After the collapse of the dam at Taum Sauk State Park this past December, several governmental agencies, legislators and Governor Blunt have been reviewing the current dam safety regulations. Below is a summary of SCS/SB1236 (as of March 28, 2006) which would dramatically change the regulatory requirements for dams. If you are concerned with the ramifications of this legislation, we urge you to contact your Representative or Senator; Eddie Gilmore, MLICA Chairman and Legislative Committee Chair; or the MLICA State Office.

SCS/SB1236 - Modifies laws pertaining to dam and reservoir safety

This act modifies several definitions, including changing the definition of dam to include appurtenant works and dams six feet or more in height with a storage volume of at least fifty acre-feet of water, and dams twenty-five feet or more in height with a storage volume of at least fifteen acre-feet of water. The act defines "high hazard" to mean that if the dam were to fail, a loss of human life is probable, and "significant hazard" to mean that if the dam were to fail, no loss of human life is expected but significant economic loss is probable. The act defines "operating permit" to mean a permit issued to an owner of a high or significant hazard dam for a period of up to five years.

The act modifies the membership of the dam and reservoir safety council to include one member who is an owner of a high or significant hazard dam or reservoir. The act requires the council to establish fees for permits required for renewal, design review, and inspection of high and significant hazard dams and review these fees once every three years.

The act directs that all high and significant hazard dams be inspected periodically to determine if they constitute a threat to public safety. The act directs the chief engineer and the head of the dam and reservoir safety program at the department of natural resources, to make recommendations concerning construction permits for high and significant hazard dams and operating permits for these structures.

All owners of high or significant hazard dams shall first apply for a construction permit prior to beginning work on any such structure. Any such application shall include the signature of an experienced engineer registered in Missouri.

The act removes the language exempting dams constructed for soil and water conservation, irrigation, or wildlife conservation, from the provisions of the act.

The act maintains the exemption for agricultural dams and reservoirs from regulation by the council. New language allows any landowner who owns an agricultural dam or reservoir to be regulated by the council if they request such regulation in a certified letter mailed to the council. After such a request has been made and granted, any subsequent request to have an agricultural dam or reservoir removed from regulation may be only be made by the director of the department of natural resources. Nothing in the act shall be construed to require any landowner who owns an agricultural dam or reservoir to choose regulation by the council as a condition of doing business.

All owners of high or significant hazard dams shall notify the council upon completion of any construction related to high or significant hazard dams and shall subsequently apply for an operating permit.

The act requires that every dam constructed after the effective date of this act that is not registered, shall do so within six months of the effective date and those owners of high and significant hazard dams shall apply for an operating permit no later than one year after the effective date of the act.

Missouri LICA NEWS



Missouri Land Improvement Contractors Association

The *Missouri LICA NEWS* is the official bi-monthly publication of the Missouri Land Improvement Contractors Association, dedicated to the professional conservation of soil and water.

The *Missouri LICA NEWS* welcomes your comments and articles.

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Linn, MO

District #6 Vacant

Welcome to LICA!

We'd like to welcome the following members to Missouri LICA.

New Contractors:

Clint Deitch
EDDCO Construction, Inc.
28715 JJ Highway
Norborne, MO 64668
District: 1 County: Carroll
Phone: 660-484-3874
Cell: 660-329-0487
Email: deitch@newcenturyag.com
Work Categories: EC,EMC,SP,EXG,LL,
WM,SWU,ODW,PD
Equipment: DP,DZ,ME,EX,TR

Lance Dirks; Lenora
Dirks Dozing
RR 1 Box 238
Rich Hill, MO 64779-9647
District: 4 County: Bates
Phone: 660-832-4859
Fax: 660-832-4859
Cell: 660-679-1602

Ralph Johnson; Susan
Johnson Hauling
401 E Osage Street
Lincoln, MO 65338-1004
District: 4 County: Benton
Phone: 660-547-3774
Cell: 660-723-0368
Sponsor: Dean Yoder

New Supporting

Cletus Barsch; Amy
Dean Machinery
6113 Shamrock Lane
St. Joseph, MO 64505
District: 1 County: Buchanan
Phone: 816-364-2257
Fax: 816-233-2515
Cell: 816-271-3095
Email: cbarsch@deanmch.com
Sponsor: Dennis Brinton

With Deep Sympathy



In February, both Lucille and Nathan Shimp passed away. They are the parents of Kevin Shimp, Port Industries. Nathan was inducted in the National LICA Hall of Fame in recognition of his vital contributions to LICA and our industry. His influence will be felt for many generations to come. We offer our deepest sympathy to Kevin and his family.

Directory Changes

Contractor Changes

Kerry Dickemann has renewed his dues for 2006. His contact information is:

Mid-Missouri Excavating & Septic LLC
P.O. Box 1373
Camdenton, MO 65020-1373
District: 5 County: Camden
Phone: 573-873-0055
Fax: 573-873-0066
Email: dickeman@yhti.net
Work Categories
EMC,EXG,LL,LS,PD, SEP, SP,TH
Equipment: BH,CL,EX,GR

Associate Changes:

The fax number for Phillip Giffen with Dysart Insurance Agency, Inc. was listed incorrectly in the January/February 2006 MLICA News. The correct fax number is: 660-886-9013.



March

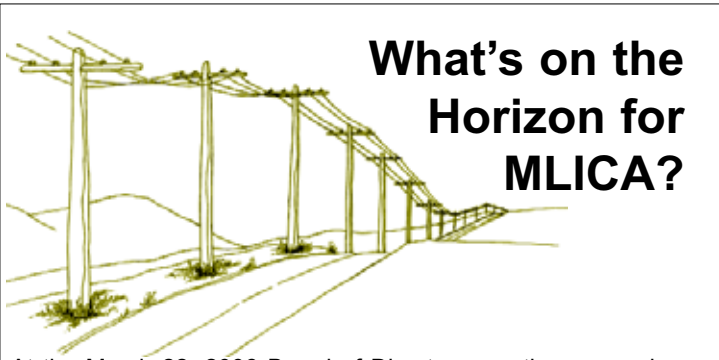
03 J.D. Kelly
12 Ray Garrett
15 George Schulte
20 Bud Ward
25 Susan Garrett
25 Gene Haile
26 John Flora
28 Scott Thompson
29 Larry McClanahan
31 Roger Wehmeyer

April

14 Don Scheib
15 Mel Kleinsorge
18 Violet Corbett
18 Jeff Houston
19 Marty Dodge
26 Bob Parks
28 Billy Brewster

May

10 Jake Gingerich
13 Weldon Tague
15 Vivian Limback
20 Bruce Johnmeyer
22 Brent Limback
30 Gerald Bauer
31 Ozzie Wallace



What's on the Horizon for MLICA?

At the March 22, 2006 Board of Directors meeting, several new committees were established, along with specific goals. If you would like to help make these events happen, please take a minute, call the Chairman and volunteer! If YOU don't volunteer, who will?

2006 Backhoe Rodeo: Ken Balkenbusch & Nelson Wilson, Co-Chairs; This committee will plan a backhoe rodeo in the Columbia area for the fall of 2006.

2007 Backhoe Rodeo: Gayle Matthews, Chair; This committee will plan at least two backhoe rodeos in the spring of 2007.

Ladies Program Committee: Mona Bledsoe, Sondra Brinton, and Stephanie Taylor, Co-Chairs; This committee will develop an agenda for the Ladies program, as well as a "survivor" theme for the Saturday night Awards Banquet.

Education Committee: We're looking for someone to chair a committee which will design the educational program for the 2007 Winter Convention.

On-Site Waste Training: Larry LaFollette, Chair; This committee will develop an educational program for the Onsite Wastewater Systems Installers License's required Continuing Education Units (CEUs).

Dam Safety Regulations: Eddie Gilmore, Chair; This committee will monitor the progress of SCS/SB1236 and notify the District Presidents if/when testimony is needed.

SCS/SB1236 (From page 1)

Those owners licensed under the Federal Power Act shall apply for an operating permit no later than three months after the effective date of the act.

The act asserts that if downstream conditions change the hazard classification of any dam or reservoir, the owner shall notify the council of the change within three months of the event.

The act directs that if a high or significant hazard dam is found to present a threat to public safety, the permits shall be suspended until such time as the owner has completed all necessary alterations to ensure the protection of public safety.

The act allows the transfer of any operating permit to a successive owner of a dam or reservoir along with the notification of the current hazard classification of the dam. Failure to notify the council of the transfer shall result in the prior owner retaining responsibility for the dam and being subject to the provisions of the act.

Violations of the provisions of the act are punishable as a misdemeanor and subject to fines up to ten thousand dollars or jail time of no more than one year.

LICA Safety Insurance Program Update

The LICA Safety Insurance Program has announced a tentative dividend rate of 5.5% for the 2005 program participants. This percentage will be confirmed in July, after Continental Western has been able to receive all 2005 claims and either settle them or estimate a settlement. The dividend checks for 2005 should be sent to participants in August.

Below are the figures for the 2005 LICA Safety Insurance Program. As you will note, Missouri's loss ratio is exceptionally high. This was due to one very large claim which involved an uninsured motorist. In other words, there was nothing which could have been done to prevent this accident.

Note: "Written Premium" indicates the value of a full-year's premium; "Earned Premium" indicates the actual premium dollars paid by participants.

LICA Chapter	Written Premium	Earned Premium	Incurred Losses	Loss Ratio
Iowa	\$ 2,608,571	\$ 2,675,700	\$ 617,965	23.10%
Missouri	\$ 857,329	\$ 834,903	\$ 771,653	92.42%
Illinois	\$ 296,117	\$ 183,807	\$ 16,623	9.04%
Wisconsin	\$ 180,303	\$ 179,468	\$ 145,813	81.25%
Total	\$ 3,942,320	\$ 3,873,878	\$ 1,552,054	40.06%

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State Cost-Share Update

As you should know by now, the State Cost-Share will be coming up for renewal on either the August or November ballot. The issue will be titled "Constitutional Amendment 1."

Currently, we are waiting for the Governor to decide if he will place the issue on the August ballot. He will need to make the decision by May .

In the meantime, the Citizens' Committee for Soil, Water and State Parks is still collecting funds to

support an informational campaign. According to a recent survey of Missouri registered voters, most voters had not heard about the tax. Once they were informed of its purpose, they indicated that they would vote for it. That means that we have to get busy designing a campaign to inform the voters.

If you perform any state cost-share work and have not already done so, please send your contribution TODAY! We can't book any ads until we know what our budget will be. For your convenience, we have enclosed a contribution envelope and informational card.

If you would like more of the contribution envelopes or promotional cards to give to your customers and friends, please contact the Missouri LICA state office (573-634-3001). We'd be happy to send them to you.



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Lee's Summit, MO 64086
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North American Green

Erosion Control Blankets
Turf Reinforcement Mats

Terra Aqua Gabions

Precast Concrete Revetment Mats

Geoweb Confinement System

Sod Staples

Drainage

PVC Pipe 4" to 48"
HDPE Pipe 4" to 48"

NDS Plastic Catch Basins

Miradrain Wall Drains

Miscellaneous

Pond Liners - PVC, HDPE, LDPE
Landfill Covers

Geoblock Porous Grass Paving System



Excavations: Hazard Recognition in Trenching and Shoring

OSHA Technical Manual - Section V, Chapter 2

As the 2006 construction season begins, it is very important to review OSHA standards, which protect our lives and those of our employees. Below is the first of a series of articles relating to OSHA standards. These articles are not intended to be used as legal interpretations of OSHA standards, but rather as a refresher. The information contained in these articles came from the OSHA website: www.OSHA.gov and can change over time. It is recommended that you and your employees become familiar with OSHA standards.

INTRODUCTION

Excavating is recognized as one of the most hazardous construction operations. OSHA recently revised Subpart P, Excavations, of 29 CFR 1926.650, .651, and .652 to make the standard easier to understand, permit the use of performance criteria where possible, and provide construction employers with options when classifying soil and selecting employee protection methods.

This chapter is intended to assist OSHA Technical Manual users, safety and health consultants, OSHA field staff, and others in the recognition of trenching and shoring hazards and their prevention.

DEFINITIONS

- A. **ACCEPTED ENGINEERING PRACTICES** are procedures compatible with the standards of practice required of a registered professional engineer.
- B. **ADJACENT STRUCTURE STABILITY** refers to the stability of the foundation(s) of adjacent structures whose location may create surcharges, changes in soil conditions, or other disruptions that have the potential to extend into the failure zone of the excavation or trench.

- C. **COMPETENT PERSON** is an individual who is capable of identifying existing and predictable hazards or working conditions that are hazardous, unsanitary, or dangerous to employees, and who *has authorization to take prompt corrective measures to eliminate or control these hazards and conditions.*
- D. **CONFINED SPACE** is a space that, by design and/or configuration, has limited openings for entry and exit, unfavorable natural ventilation, may contain or produce hazardous substances, and is not intended for continuous employee occupancy.
- E. **EXCAVATION.** An Excavation is any man-made cut, cavity, trench, or depression in an earth surface that is formed by earth removal. A Trench is a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth of a trench is greater than its width, and the width (measured at the bottom) is not greater than 15 ft (4.6 m). If a form or other structure installed or constructed in an excavation

“OSHA Definitions >p5

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OSHA Definitions *(From page 4)*

reduces the distance between the form and the side of the excavation to 15 ft (4.6 m) or less (measured at the bottom of the excavation), the excavation is also considered to be a trench.

- F. **HAZARDOUS ATMOSPHERE** is an atmosphere that by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen-deficient, toxic, or otherwise harmful may cause death, illness, or injury to persons exposed to it.
- G. **INGRESS AND EGRESS** mean "entry" and "exit," respectively. In trenching and excavation operations, they refer to the provision of safe means for employees to enter or exit an excavation or trench.
- H. **PROTECTIVE SYSTEM** refers to a method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, and from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.
- I. **REGISTERED PROFESSIONAL ENGINEER** is a person who is registered as a professional engineer in the state where the work is to be performed. However, a professional engineer who is registered in any state is deemed to be a "registered professional engineer" within the meaning of Subpart P when approving designs for "manufactured protective systems" or "tabulated data" to be used in interstate commerce.
- J. **SUPPORT SYSTEM** refers to structures such as underpinning, bracing, and shoring that provide support to an adjacent structure or underground installation or to the sides of an excavation or trench.

- K. **SUBSURFACE ENCUMBRANCES** include underground utilities, foundations, streams, water tables, transformer vaults, and geological anomalies.
- L. **SURCHARGE** means an excessive vertical load or weight caused by spoil, overburden, vehicles, equipment, or activities that may affect trench stability.
- M. **TABULATED DATA** are tables and charts approved by a registered professional engineer and used to design and construct a protective system.
- N. **UNDERGROUND INSTALLATIONS** include, but are not limited to, utilities (sewer, telephone, fuel, electric, water, and other product lines), tunnels, shafts, vaults, foundations, and other underground fixtures or equipment that may be encountered during excavation or trenching work.
- O. **UNCONFINED COMPRESSIVE STRENGTH** is the load per unit area at which soil will fail in compression. This measure can be determined by laboratory testing, or it can be estimated in the field using a pocket penetrometer, by thumb penetration tests, or by other methods.
- P. **DEFINITIONS THAT ARE NO LONGER APPLICABLE.** For a variety of reasons, several terms commonly used in the past are no longer used in revised Subpart P. These include the following:
 - 1. **Angle of Repose** Conflicting and inconsistent definitions have led to confusion as to the meaning of this phrase. This term has been replaced by Maximum Allowable Slope.
 - 2. **Bank, Sheet Pile, and Walls** Previous definitions were unclear or were used inconsistently in the former standard.
 - 3. **Hard Compact Soil and Unstable Soil.** The new soil classification system in revised Subpart P uses different terms for these soil types.



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Looking for Divining Rods?

Following our 2006 Drainage Workshop, the MLICA state office received several calls from contractors looking for divining rods. In case you would like to find some, here are some places to look:



Heartland Waterworks Supply
14021 Botts Road
Grandview, MO 64030
Phone: 816-767-1767

Website:
www.heartlandwaterworks.com

Divining Mind Radiesthetic Supplies
PO Box 189
(350 Government Street South)
Greenwood, BC V0H 1J0 Canada
Phone: 250-445-2277
Fax: 250-445-2278
Website: www.diviningmind.com

Dowers - Joey Korn
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Augusta, GA 30904
Phone: 706-733-0204
Fax: 706-736-2549
Email: Joey@dowers.com
Website: www.dowers.com

Excavations: Hazard Recognition in Trenching and Shoring

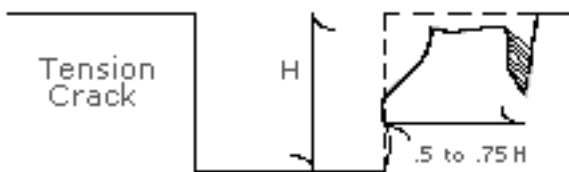
OSHA Technical Manual - Section V, Chapter 2 (Continued)

OVERVIEW: SOIL MECHANICS

A number of stresses and deformations can occur in an open cut or trench. For example, increases or decreases in moisture content can adversely affect the stability of a trench or excavation. The following diagrams show some of the more frequently identified causes of trench failure.

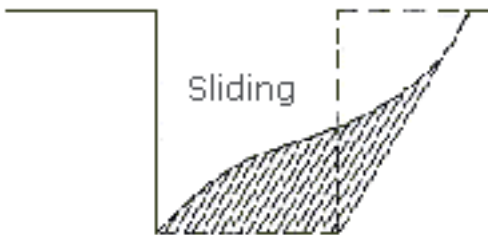
TENSION CRACKS Tension cracks usually form at a horizontal distance of 0.5 to 0.75 times the depth of the trench, measured from the top of the vertical face of the trench. See the accompanying drawing for additional details.

FIGURE 5:2-1. TENSION CRACK



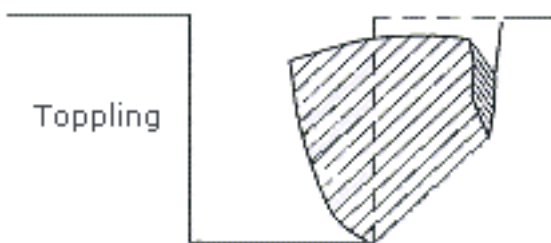
SLIDING or sluffing may occur as a result of tension cracks, as illustrated below.

FIGURE 5:2-2. SLIDING



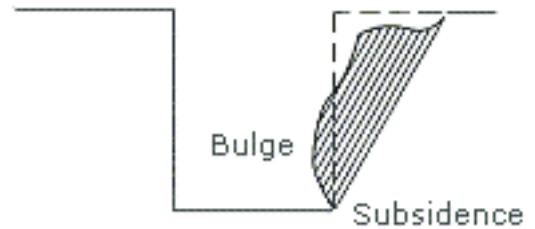
TOPPLING. In addition to sliding, tension cracks can cause toppling. Toppling occurs when the trench's vertical face shears along the tension crack line and topples into the excavation.

FIGURE 5:2-3. TOPPLING



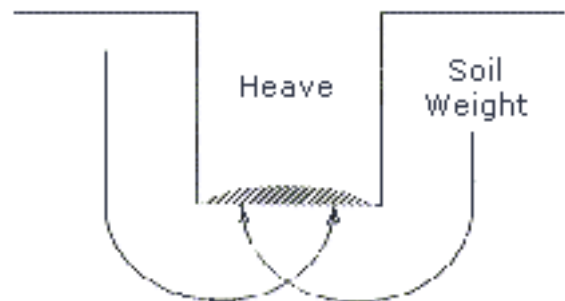
SUBSIDENCE AND BULGING An unsupported excavation can create an unbalanced stress in the soil, which, in turn, causes subsidence at the surface and bulging of the vertical face of the trench. If uncorrected, this condition can cause face failure and entrapment of workers in the trench.

FIGURE 5:2-4. SUBSIDENCE AND BULGING



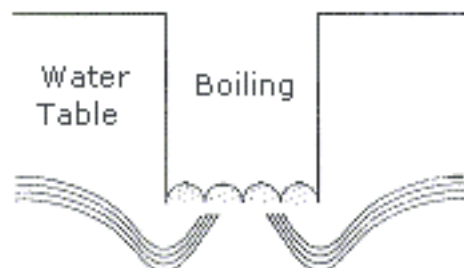
HEAVING OR SQUEEZING- Bottom heaving or squeezing is caused by the downward pressure created by the weight of adjoining soil. This pressure causes a bulge in the bottom of the cut, as illustrated in the drawing above. Heaving and squeezing can occur even when shoring or shielding has been properly installed.

FIGURE 5:2-5. HEAVING OR SQUEEZING



BOILING is evidenced by an upward water flow into the bottom of the cut. A high water table is one of the causes of boiling. Boiling produces a "quick" condition in the bottom of the cut, and can occur even when shoring or trench boxes are used.

FIGURE 5:2-6. BOILING



UNIT WEIGHT OF SOILS refers to the weight of one unit of a particular soil. The weight of soil varies with type and moisture content. One cubic foot of soil can weigh from 110 pounds to 140 pounds or more, and one cubic meter (35.3 cubic feet) of soil can weigh more than 3,000 pounds.

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Excavations: Hazard Recognition in Trenching and Shoring

OSHA Technical Manual - Section V, Chapter 2 (Continued)

DETERMINATION OF SOIL TYPE

OSHA categorizes soil and rock deposits into four types, A through D, as follows:

STABLE ROCK is natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed. It is usually identified by a rock name such as granite or sandstone. Determining whether a deposit is of this type may be difficult unless it is known whether cracks exist and whether or not the cracks run into or away from the excavation.

TYPE A SOILS are cohesive soils with an unconfined compressive strength of 1.5 tons per square foot (tsf) (144 kPa) or greater. Examples of Type A cohesive soils are often: clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam. (No soil is Type A if it is fissured, is subject to vibration of any type, has previously been disturbed, is part of a sloped, layered system where the layers dip into the excavation on a slope of 4 horizontal to 1 vertical (4H:1V) or greater, or has seeping water.

TYPE B SOILS are cohesive soils with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa). Examples of other Type B soils are: angular gravel; silt; silt

loam; previously disturbed soils unless otherwise classified as Type C; soils that meet the unconfined compressive strength or cementation requirements of Type A soils but are fissured or subject to vibration; dry unstable rock; and layered systems sloping into the trench at a slope less than 4H:1V (only if the material would be classified as a Type B soil).

TYPE C SOILS are cohesive soils with an unconfined compressive strength of 0.5 tsf (48 kPa) or less. Other Type C soils include granular soils such as gravel, sand and loamy sand, submerged soil, soil from which water is freely seeping, and submerged rock that is not stable. Also included in this classification is material in a sloped, layered system where the layers dip into the excavation or have a slope of four horizontal to one vertical (4H:1V) or greater.

LAYERED GEOLOGICAL STRATA Where soils are configured in layers, i.e., where a layered geologic structure exists, the soil must be classified on the basis of the soil classification of the weakest soil layer. Each layer may be classified individually if a more stable layer lies below a less stable layer, i.e., where a Type C soil rests on top of stable rock.

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