

Minnesota Attorney General: Administrative Rules Proceedings

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Version 3
August 20, 2018

Our File No. 676

RULE REVIEW CHECKLIST

DATE RULE RECEIVED 2/20/81
DATE FOR REVIEW 3/2/81
DATE DUE 3/12/81

Adopted w/a hearing ✓
Adopted w/o a hearing _____
Temporary rule _____

Approved _____ Disapproved _____ Returned to Agency _____

Resubmitted _____ Due _____
Approved _____ Disapproved _____ Returned to Agency _____

Date filed w/Secretary of State _____

✓ Rule as Adopted

✓ Rule as Proposed - see SR.
✓ Post-hearing revisions

✓ Order Adopting
✓ Order Re-Adopting

N/A Notice of Intent to Solicit Outside Opinion

✓ Order for rulemaking
9.30.80 Date of Hearing

N/A Certificate of Board's Authorizing Resolution

✓ Notice of rulemaking 8.8.80
✓ Sufficiency

✓ Affidavit of Mailing Notice of rulemaking
8.29.80 At least 30 days prior to hearing/~~adoption~~

✓ Mailing list ~~Certificate~~ -

✓ Publication in State Register
8.25.80 At least 30/~~20~~ days prior to hearing/~~adoption~~

✓ Hearing Examiner's Report + Appendix showing post-hearing revisions

✓ Chief Hearing Examiner's Report(s)
✓ 11.18.80 Approving H.E.'s Report
✓ 2.13.81 ~~Approving~~ agency action - defects still present.

✓ Agency's Findings of Fact

N/A LCRAR Report or agency Affidavit

N/A Certificate of Board's Resolution Adopting Rules

✓ Order Approving Incorporation by Reference

✓ Statement of Need and Reasonableness

N/A Petition for Adoption of a Rule

✓ Record (includes transcript or tape, exhibits, comments received by agency, requests for a hearing, and other relevant materials)

✓ Certificate of Compliance w/Rulemaking Procedures

✓ Affidavit of Mailing Notice of Submission to Attorney General

✓ Notice of Submission to the Attorney General

✓ Statements of Consultation with PCA/DNR

ADMIN 1000 Rev. 1 78
SF-00006-01

STATE OF MINNESOTA

DEPARTMENT ATTORNEY GENERAL

Office Memorandum

TO : George M. Pettersen, M.D.
Commissioner of Health

: William G. Miller
Special Assistant Attorney General

DATE: 3/9/81

FROM : JERRY S. ANDERSON
Special Assistant
Attorney General

PHONE: 6-4692

SUBJECT: In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings.

Enclosed herewith are the rules you have submitted for approval. These rules have been approved by this office and filed with the Secretary of State. Please note that they have not been filed with the State Register; this must be done promptly by your agency.

Upon receipt and before transmittal to your agency, however, it is important that you recheck these rules as to:

1. Affixation of stamps of the Attorney General and Secretary of State to the last page of the rules;

2. Coverage by these stamps of all rules submitted; and

3. Inclusion of all pages to the rules in the approved set.

If you have any questions in this regard, please contact me.

JSA/gy

cc: Susan Robertson, LCRAR
Duane Harves, OAH

Enc.

AG copy

STATE OF MINNESOTA
COUNTY OF HENNEPIN

BEFORE THE MINNESOTA
COMMISSIONER OF HEALTH

In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings.

ORDER FOR RE-ADOPTION

The version of the above-referenced rule, 7MCAR §1.225 which was adopted by the Commissioner of Health, ORDER FOR ADOPTION, dated January 29, 1981, has been found deficient by the Chief Hearing Examiner.

In his Report dated February 13, 1981, the Chief Hearing Examiner determined that if deficiencies in the adopted rule were corrected as he recommended, the rule could then be re-adopted and submitted to the Attorney General for review.

Having considered the Recommendations as made by the Chief Hearing Examiner, IT IS HEREBY ORDERED that 7MCAR §1.225, as adopted by my order of January 29, 1981, be amended to read as follows:

1. 7MCAR §1.225 B. ~~16~~ 12 "Ground water"...;
   B. ~~12~~ 13 "Grout"...;
   B. ~~13~~ 14 "Person"...;
   B. ~~14~~ 15 "Pollution"...;
   B. ~~15~~ 16 "Responsible individual"... .
2. 7MCAR §1.225 C.4.a.(2)(b). All applicants in any one examination session will be given the same combination of written, oral, or practical work based on the substance of this rule ~~and an evaluation interview by the Council~~.
3. 7MCAR §1.225 C.4.b. The Commissioner shall not act upon the application for qualification until he has received all the ~~neeessary~~ information required by this rule.
4. 7MCAR §1.225 C.5.d. A license may be revoked and a responsible individual may be disqualified until certain conditions specifically related to the violations giving rise to the revocation are fulfilled and/or for a specified period of time, as determined to be most appropriate by the

Commissioner and as specified in the Commissioner's order of revocation. A revoked license shall be returned to the Commissioner.

The rule as hereby amended, a copy of which is attached hereto and made a part hereof, is re-adopted this 19 th day of February, 1981, pursuant to authority vested in me by Minn. Stat. §156A.031 (1980).

STATE OF MINNESOTA

George R. Pettersen MD

George R. Pettersen, M.D.
Commissioner of Health

STATE OF MINNESOTA

COUNTY OF HENNEPIN

BEFORE THE MINNESOTA

COMMISSIONER OF HEALTH

In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings.

*
* Order for Adoption
*
*

The above-entitled matter came on for hearing before Hearing Examiner Richard Luis, on the 30th day of September, 1980 at 9:30 a.m. in Room 105 of the Minnesota Department of Health Building, Minneapolis, Minnesota after proper notice as required by Minn. Stat. § 15.0412 had been served upon all persons, associations and other interested groups registered with the State Department of Health for that purpose.

After affording interested persons an opportunity to present written and oral data, statements and arguments, having heard all of the testimony, having considered all of the evidence adduced and upon the records, files and proceedings herein, and applicable statutory standards and criteria, and having confirmed the need for the above-captioned rules,

NOW, THEREFORE, IT IS ORDERED that these rules identified as 7 MCAR § 1.225 and these amendments to rules identified as 7 MCAR §1.210, copies of which are attached to this order and made a part hereof, are adopted this 29th day of January, 1981, pursuant to authority vested in me by Minn. Stat. § 156 A.031 (1980).

STATE OF MINNESOTA

George R. Pettersen MD

George R. Pettersen, M.D.
Commissioner of Health

ADOPTED RULES -

Double underlining indicates additions to Revised Rules. See Revised Rules for deletions therefrom

2-17-81

Underlining indicates additions to Rules as Proposed as published in S.R.

7 MCAR §.210 Definitions and policies.

B . . .

2. "Council" means the Water Well Contractors' and Exploratory Borers' Advisory Council created pursuant to the provisions of Minn. Stat. § 156A.06.

. . .

6. "Applicant" means any person who applies for a water well contractor's license pursuant to the Act.

. . .

CHE 1

9. "Year of experience" for a water well contractor means a year during which the applicant personally drilled five (5) water wells and was actively working in the trade for a period of 1,000 hours under the supervision of a licensed water well contractor. An applicant drilling 1,000 hours per year and completing fewer than five wells per year may qualify, if the experience is gained in constructing one or more large diameter wells (casing outer diameter is ten inches or more) which are more than 500 feet deep. An applicant who seeks to qualify under this provision shall have his license limited to construction of such deep and large diameter wells.

10. "Licensee" means a person who is licensed as a water well contractor pursuant to the provisions of the Act and these rules.

7MCAR § 1.225 Rule Relating to Explorers and Exploratory Borings.

A. Policies.

1. This rule shall apply to all exploratory borings constructed in the State of Minnesota except those specifically exempted by Minn. Stat. § 156A.02, subd. 5. Those aspects covered are the licensing of explorers, the examination of responsible individuals, and the proper abandonment of exploratory borings to protect the quality of groundwater aquifers. The explorer shall be responsible for the construction and abandonment of all exploratory borings completed under his license.

2. Modification by the Commissioner.

a. When the strict application of any provision of this rule presents practical difficulties or unusual hardships, the Commissioner, in a specific instance, may modify the application of such provision consistent with the general purpose of this rule and the Act and upon such conditions as are necessary, in the opinion of the Commissioner, to protect the ground water of the State and the health, safety, and general well-being of persons using or potential users of ground water.

b. Any request for modification shall be submitted to the Commissioner in writing and shall be signed by the licensed explorer and the designated responsible individual. Such request shall specify in detail the nature of the modification being sought, the reasons therefor, and the special precautions to be taken to avoid contamination of the ground water. The request shall also include: the proposed boring depth, casing type and depth, method of construction and grouting, geological conditions likely to be encountered, and location of the boring and of possible sources of contamination. Whether or not the request is granted, the Commissioner shall state in detail the reasons for the decision.

B. Definitions.

For the purpose of this rule, the following terms or phrases shall have the meaning given them, except where the context clearly indicates otherwise.

1. "Aquifer" means a water-bearing formation (soil or rock horizon).

2. "Act" means Minnesota Statutes §§ 156A.01-156A.08, as amended, under which this rule is promulgated.

3. "Annular space" means the space between two cylindrical objects one of which surrounds the other, such as the space between a drillhole and a casing pipe, or between a casing pipe and liner pipe.

4. "APA" means the Administrative Procedure Act, Chapter

15, Minnesota Statutes.

5. "Casing" means an impervious durable pipe placed in a boring to prevent the walls from caving and to seal off surface drainage or undesirable water, gas or other fluids to prevent their entering the boring and the ground water.

6. "Commissioner" means the commissioner of health or his or her authorized representative.

7. "Council" means the Water Well Contractors and Exploratory Borers Advisory Council, created pursuant to the provisions of Minnesota Statutes § 156A.06.

8. "Established ground surface" means the intended or actual finished grade (elevation) of the surface of the ground at the site of the exploratory boring.

9. "Exploratory boring" means any surface drilling done for the exploration of oil, natural gas or metallic minerals as defined in Minnesota Statutes, Section 156A.02, subdivision 5.

10. "Explorer" means a person who has the right to drill any exploratory boring.

11. "Geological material" means all materials penetrated in drilling an exploratory boring.

a. The following table lists materials other than consolidated rock classified according to average particle size (Wentworth 1922):

Particle Diameters

Material	Millimeters	Inches	Screen Slot No. From	To
Clay	Up to - 0.005	Up to 0.0002		
Silt	0.005 - 0.062	0.0002 - 0.0025		
Fine Sand	0.062 - 0.250	0.0025 - 0.010	2	10
Medium Sand	0.250 - 0.50	0.010 - 0.020	10	20
Coarse Sand	0.50 - 1.00	0.020 - 0.040	20	40
Very Coarse Sand	1.00 - 2.00	0.040 - 0.080	40	80
Fine Gravel	2.00 - 4.00	0.080 - 0.160	80	160
Coarse Gravel	4.00 - 62.50	0.160 - 2.50	160 & larger	
Cobbles	62.5 - 250.0	2.50 - 10.0		
Boulders	250.0 and larger	10.0 and larger		

b. "Limestone" means rock which contains at least 80% of carbonates of calcium and has strong reaction with HCl (muriatic acid).

12. "Ground water" means the water in the zone of saturation in which all of the pore spaces of the subsurface material are filled with water.

13. "Grout" means neat cement, concrete, heavy drilling fluid or heavy bentonite slurry.

a. "Neat cement" means a mixture of 1 bag (94 pounds) of Portland cement meeting the standard specifications of ASTM C150-69a, and not more than 6 gallons of clean water. Bentonite up to 2% by weight of cement may be used to reduce shrinkage. Other admixtures meeting the standard specifications of ASTM C494-68 may be used to reduce permeability and/or control time of set.

b. "Concrete" means a mixture of Portland cement, sand and water in the proportion of 1 bag (94 pounds) of Portland cement meeting the standard specifications of ASTM C150-69a, and an equal volume of dry sand and not more than 6 gallons of clean water. Where large volumes are required to fill annular openings, gravel not larger than 1/2-inch size may be added.

c. "Heavy drilling fluid" or "heavy bentonite slurry" shall contain a high percentage of clay or bentonite to minimize shrinkage of the slurry. Bentonite shall contain at least 85% of the mineral monmorillinite and shall meet American Petroleum Institute specification standard 13A (March 1966). Heavy drilling fluid or heavy bentonite slurry shall be of sufficient viscosity to require a time of at least 70 seconds to discharge 1 quart of the material through an API Marsh funnel viscometer. Saline, acid, or alkaline substances or other additives that cause a temporary increase in viscosity of the bentonite slurry are not permitted.

14. "Person" means any natural person, corporation, partnership, or other business association.

15. "Pollution" or "contamination" means the presence or addition of any substance to water which is or may become injurious to the health, safety or welfare of the general public or private individuals and which is or may become injurious to domestic, commercial, industrial, agricultural or other uses which are being made of such water.

16. "Responsible individual" means a person who has met the qualifications prescribed in part C.4.a. and has been approved for designation by the Commissioner in accordance with the terms of part C.4.c. HE 28

C. Licensing: CHE 5

1. No person shall drill, construct or otherwise cause to be made, an exploratory boring unless he possesses, or is employed by one who possesses CHE 5 a valid explorer's license issued by the Commissioner. see HE 34

2. An explorer engaging in exploratory boring shall obtain a license in accordance with this rule.

3. A person shall annually apply for an explorer's license by submitting to the Commissioner a properly completed application accompanied by a $50.00 license fee, payable to the Treasurer, State of Minnesota. An explorer's license shall be effective for the calendar year for which it is issued.

a. The person applying for an explorer's license shall include the name of the responsible individual who will supervise or oversee the location, construction, and abandonment of exploratory borings on behalf of the explorer.

b. If the person applying for the explorer's license does not designate a responsible individual, the commissioner shall issue a conditional license. Such a license is not considered valid for the purpose of engaging in the construction of exploratory borings until a responsible individual has been designated and the Commissioner has been notified of such designation. The notification of designation shall be made at least 10 days prior to the commencement of exploratory boring.

4. Qualification as responsible individual. } See HE 21 and HE 30.

a. A person who seeks to qualify for designation as a responsible individual shall

(1) complete and submit an application for qualification to the Commissioner, along with a $50.00 fee which is payable to the Treasurer, State of Minnesota,

(2) take and pass an examination on the portions of this rule which relate to mineral exploration activities, or document the fact that he or she is a registered professional engineer or certified professional geologist, in accordance with Minn. Stat. § 156A.071, subd. 2.

(a) A person may take the examination as many times as he desires. Each new application for qualification shall be accompanied by a new fee.

(b) All applicants in any one examination session will be given the same combination of written, oral, or practical work based on the substance of this rule.

HE 31
CHE 6

b. The Commissioner shall not act upon the application for qualification until he has received all the information required by this rule.

see HE 30
CHE 7

c. When the Commissioner determines that an individual has met all the qualifications prescribed in part C.4 (above), the Commissioner shall notify the person and shall enter that person's name on a list of persons who qualify for designation as responsible individuals.

5. Revocation of License; Disqualification.

a. The Commissioner or Council may cause an investigation to be made in any case in order to determine whether there has been a violation of the Act or this rule, and, in so doing may request the explorer and/or the designated responsible individual to appear before them to determine the merits of the situation in question. The Council may make a recommendation to the Commissioner as to whether proceedings under the act and the APA would be appropriate.

b. Any disciplinary action taken under this rule shall comply with the APA.

c. The Commissioner may revoke the license of an explorer and may disqualify a responsible individual upon finding that the explorer or the designated responsible individual has violated the act or this rule. The Commissioner may initiate such proceedings upon his own motion or upon recommendation of the Council.

d. A license may be revoked and a responsible individual may be disqualified until certain conditions specifically related to the violations giving rise to the revocation are fulfilled and/or for a specified period of time as determined to be most appropriate by the Commissioner and as specified in the Commissioner's order of revocation. A revoked license shall be returned to the Commissioner.

e. Reinstatement:

(1) An explorer who has had his license revoked may be relicensed by submitting the usual application and fee.

(2) A responsible individual who has been disqualified may be requalified by following the procedure prescribed in C.4.a. HE33

(3) The Commissioner shall require an investigation or hearing to determine whether an explorer should be issued a new license or a responsible individual should be requalified provided, however, that in no case shall a new license be issued or a responsible individual be requalified prior to one year after revocation or disqualification has taken effect.

D. Abandonment of Exploratory Borings.

1. Abandonment of all exploratory borings shall be carried out in accordance with the provisions of chapter 156A and this rule. CHE9 Abandonment, whether temporary or permanent, shall be undertaken immediately upon completion of drilling activities. The Commissioner may order that an exploratory boring be sampled and any contamination be removed prior to abandonment. If an exploratory boring provides a potential or actual source or channel of contamination for an aquifer, the Commissioner may order that the boring be permanently abandoned. see HE 35 ? permissive

2. Temporary abandonment.

a. A temporarily abandoned exploratory boring shall be maintained whereby it is not a source or channel of contamination for any aquifer.

b. Until a boring is permanently abandoned, all provisions for protection of the ground water against contamination and

pollution and for maintaining satisfactory sanitary conditions around the boring shall be carried out.

c. A boring which is temporarily abandoned shall be constructed to prevent the introduction of surface contaminants into the boring to prevent the passage of water from one aquifer to another. At the minimum, a temporarily abandoned boring shall be cased from bedrock or from the bottom of the boring if the boring terminates in unconsolidated materials, to a point one foot above the ground surface, or if in a flood plain, at least two feet above the level of the highest flood of record. The casing shall be protected with an overlapping cap which HE 38 will prevent any surface contamination from entering the boring.

d. Any boring which is temporarily abandoned shall be marked and protected with four steel posts (schedule 40 steel pipe) of at least 4-inch diameter at equal distances from each other and which are placed 2 feet from the center of the casing. Such posts shall be installed to a depth of HE 38 4 feet into solid ground, or to a depth of 2 feet if each post is surrounded with 1 foot of concrete to a depth of 2 feet.

e. A boring shall not be temporarily abandoned for more than five HE 38 years.

3. Permanent abandonment.

a. Whenever the explorer determines that a boring need not remain open any longer, or whenever he is about to lose the right to explore, the explorer shall permanently abandon

the boring. The boring shall be filled with grout to prevent contaminating materials from entering the water-bearing ground formations.

b. All materials, debris and obstructions that may interfere with sealing operations shall be removed from the boring. Liner pipe shall be removed or perforated when necessary to assure placement of an effective seal. The Commissioner shall be consulted for instruction in case of abandonment of a contaminated boring or where there is a question of proper procedure.

c. All casing and screen may be salvaged except casing that has been cemented in place. The boring shall be filled with appropriate sealing materials as described in subpart D.3.g. prior to removal of the casing.

d. The top of the hole shall be filled with 10 feet of cement or concrete grout to within 2 feet of the land surface. Casing remaining in the hole shall be cut off at least 2 feet below land surface. The remaining top 2 feet of hole shall be filled with native topsoil.

e. When concrete, cement or heavy drilling fluid is used as a grout material, it shall be inserted in the boring through a grout pipe from the bottom of the boring upward to the surface under pressure.

f. The flow in a boring[1], encountering flowing artesian conditions shall be confined if possible; and the boring abandoned in accordance with these rules.

g. A permanently abandoned boring shall be filled and sealed using one or more of the following substances in accordance with the geological materials penetrated.

(1) The section of a boring in unconsolidated deposits shall be filled with neat cement, concrete, or heavy drilling fluid to provide a permeability no greater than the natural condition.

(2) The section of a boring in a rock formation shall be filled with neat cement or concrete.

(3) The section of a boring in a cavernous or creviced rock (such as cavernous limestone or creviced granite, etc.) shall be filled with concrete or neat cement or alternate layers of concrete or neat cement and gravel or stone aggregate. At the top of the cavernous or creviced formation, the filling shall be completed by a layer of neat cement or concrete extending at least ten feet (10 feet) into the above overlying formation, and finished as provided in these rules.

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[1]Proper judgment shall be exercised in the feasibility and practicability of sealing a boring encountering flowing artesian conditions. In some cases the confining formation may have been so badly disturbed that sealing may only cause the flow to discharge in a less appropriate location. In other situations, the flow may have eroded so much material that the landscape has taken on the appearance of a natural spring. The sealing in this case may be impractical, if not impossible.

(4) A boring so large that the use of neat cement, concrete or heavy drilling fluid is impractical, may be sealed with other materials subject to the approval of the Commissioner.

4. Abandonment Report. Within 30 days of temporary or permanent abandonment, the explorer shall submit an abandonment report, as required by Minnesota Statutes § 156A.071, Subdivision 8, to the Commissioner. The abandonment report shall specify whether the boring is being temporarily or permanently abandoned. A separate abandonment report shall be filed when a temporarily abandoned boring is permanently abandoned.

APPROVED AS TO FORM AND LEGALITY

3-9 1981

WARREN SPANNAUS, ATTORNEY GENERAL

BY _____

SPECIAL ASSISTANT ATTORNEY GENERAL

STATE OF MINNESOTA
DEPARTMENT OF STATE
FILED
MAR - 9 1981
Joan Anderson Growe
Secretary of State
10:30 AM

SF-00006-01

STATE OF MINNESOTA

DEPARTMENT ATTORNEY GENERAL - Health

Office Memorandum

TO : Jerry Anderson
Special Assistant
Attorney General

DATE: February 19, 1981

FROM : William G. Miller
Special Assistant
Attorney General

PHONE: 341-7272

SUBJECT: In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings

Enclosed and submitted for your approval are the above subject rules.

WGM:rlb

Enclosures (2 expandable pocket files)

STATE OF MINNESOTA

COUNTY OF HENNEPIN

BEFORE THE MINNESOTA

COMMISSIONER OF HEALTH

In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings, and Proposed Amendments to Rules Relating to Water Well Construction and the Use of Plastic Casing

ORDER FOR HEARING

To effectively implement Minn. Stat. §§ 156A.031 (Supp. 1979) and Minn. Laws 1980, ch. 535, the Commissioner of Health deems it necessary to consider adoption of the proposed new rules and admendments to rules captioned above pursuant to the authority vested in him by the above-referenced statutes.

NOW, THEREFORE, IT IS ORDERED this 8 day of August, 1980, that a public hearing on the proposed amendments captioned above be held in Room 105, Minnesota Department of Health Building, 717 Delaware Street Southeast, Minneapolis, Minnesota 55440, on September 30, 1980, commencing at 9:30 AM and continuing until all persons or representatives of associations or other interested groups have had an opportunity to be heard.

IT IS FURTHER ORDERED that notice of said hearing be published in the State Register and be given to all persons or representatives of associations or other interested groups who have registered their names with the Department of Health for that purpose and to all persons who are presently members of the Minnesota Legislature.

STATE OF MINNESOTA

COMMISSIONER OF HEALTH

George R. Petersen MD

GEORGE R. PETTERSEN, MD
Commissioner

STATE OF MINNESOTA
COUNTY OF HENNEPIN

BEFORE THE MINNESOTA
COMMISSIONER OF HEALTH

In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings, and Proposed Amendments to Rules Relating to Water Well Construction and the Use of Plastic Casing

NOTICE OF HEARING

Notice is hereby given that a public hearing concerning the proposed rules captioned above will be held pursuant to Minn. Stat. § 15.0412, subd. 4 (Supp. 1978) in Room 105, Minnesota Department of Health Building, 717 Delaware Street Southeast, Minneapolis, Minnesota 55440, on Tuesday, September 30, 1980, commencing at 9:30 AM. The proposed rules may be modified as a result of the hearing process. Therefore, if you are affected in any manner by the proposed rules you are urged to participate in the rule hearing process.

Following the agency's presentation at the hearing, all interested or affected persons will have an opportunity to ask questions and make comments. Statements may be made orally and written material may be submitted. In addition, whether or not an appearance is made at the hearing, written statements or material may be submitted to Richard Luis, Hearing Examiner, Office of Administrative Hearings, Room 300, 1745 University Avenue, St. Paul, Minnesota 55104, telephone: (612) 296-8114, either before the hearing or within five (5) working days after the close of the hearing. The Hearing Examiner may, at the hearing, order that the record be kept open for a longer period not to exceed 20 calendar days. All such statements will be entered into and become part of the record. For those wishing to submit written statements or exhibits, it is requested that at least three (3) copies be furnished. In addition, it is suggested, to save time and avoid duplication, that those persons, organizations, or associations having a common viewpoint or interest in these proceedings join together where possible and present a single statement in behalf of such interests. The rule hearing procedure is governed by Minn. Stat. §§ 15.0411-15.052, and by 9 MCAR §§ 2.101-2.112 (Minnesota Code of Agency Rules). If you have any questions about the procedure, call or write to the Hearing Examiner.

Notice is hereby given that twenty-five (25) days prior to the hearing, a Statement of Need and Reasonableness will be available for review at the agency and at the Office of Administrative Hearings. This Statement of Need and Reasonableness will include all of the evidence which the agency intends to present at the hearing to justify both the need for and the reasonableness of the proposed rules. However, additional evidence may be submitted in response to questions raised by interested persons. You are therefore urged to both review the Statement of Need and Reasonableness before the hearing and to attend the hearing. Copies of the Statement of Need and Reasonableness may be obtained from the Office of Administrative Hearings at a minimal charge.

If adopted, the proposals would have the following effects:

1. The proposed new rules would effectuate the statutory requirement that mineral explorers be licensed according to the procedures prescribed in 7 MCAR § 1.211 for water well contractors and to follow certain procedures for the construction and abandonment of exploratory borings; and

2. The proposed revision to existing rules governing the use of plastic well casing would prescribe procedures for its use where certain geological conditions are encountered and would allow for the use of plastic casing under conditions which permit its safe use throughout the state.

Statutory authority of the Commissioner of Health to promulgate the new rules on mineral exploration is contained in Minn. Laws 1980, ch. 535, §§ 5 and 8. Statutory authority of the Commissioner of Health to promulgate revisions to rules regarding plastic well casing is contained in Minn. Stat. § 156A.031 (Supp. 1979).

Copies of the proposed amendments are now available and at least one free copy may be obtained by writing to the Minnesota Department of Health, Division of Environmental Health, 717 Delaware Street Southeast, Minneapolis, Minnesota 55440. Additional copies will be available at the door on the date of the hearing.

Notice: Any person may request notification of the date on which the Hearing Examiner's Report will be available, after which date the agency may not take any final action on the rules for a period of five (5) working days. Any person may request notification of the date on which the hearing record has been

submitted or resubmitted to the Attorney General by the agency. If you desire to be so notified, you may so indicate at the hearing. After the hearing, you may request notification by sending a written request to the Hearing Examiner, in the case of the Hearing Examiner's Report, or to the agency, in the case of the agency's submission or resubmission to the Attorney General.

In addition, please be advised that Minn. Stat. ch. 10A requires each lobbyist to register with the State Ethical Practices Board within five days after he commences lobbying. A lobbyist is defined in Minn. Stat. § 10A.01, subd. 11 (Supp. 1979) as any individual:

(a) Engaged for pay or other consideration, or authorized by another individual or association to spend money, who spends more than five hours in any month or more than $250, not including his own travel expenses and membership dues, in any year, for the purpose of attempting to influence legislative or administrative action by communicating or urging others to communicate with public officials; or

(b) Who spends more than $250, not including his own traveling expenses and membership dues, in any year for the purpose of attempting to influence legislative or administrative action by communicating or urging others to communicate with public officials.

The statute provides certain exceptions. Questions should be directed to the Ethical Practices Board, 41 State Office Building, St. Paul, Minnesota 55155, telephone: (612) 296-5615.

Promulgation of these proposed new rules and amendments will not result in the expenditure of public monies by local government units.

Dated: August 8, 1980

STATE OF MINNESOTA

COMMISSIONER OF HEALTH

George R. Pettersen MD

GEORGE R. PETTERSEN, MD
Commissioner

Rules as Proposed.

7 MCAR §A.210 Definitions and policies.

B . . .

2. "Council" means the Water Well Contractors' and Exploratory Borers' Advisory Council created pursuant to the provisions of Minn. Stat. § 156A.06.

. . .

6. "Applicant" means any person who applies for a water well contractor's or explorer's license pursuant to the Act.

. . .

9. "Year of experience" for a water well contractor means a year during which the applicant personally drilled five (5) water wells and was actively working in the trade for a period of 1,000 hours under the supervision of a licensed water well contractor. An applicant drilling 1,000 hours per year and completing fewer than five wells per year may qualify, if the experience is gained in constructing one or more large diameter wells (casing outer diameter is ten inches or more) which are more than 500 feet deep. An applicant who seeks to qualify under this provision shall have his license limited to construction of such deep and large diameter wells. A year of experience for an explorer means a year during which the applicant supervised or personally drilled five exploration borings.

. . .

10. "Licensee" means a person who is licensed as a water well contractor or explorer pursuant to the provisions of the Act and these rules.

. . .

7 MCAR § 1.225

This rule applies to all explorers who engage in exploratory boring in accordance with the provisions of Minn. Stats. § Chap. 156A (as amended by Laws 1980, Chap. 535).

A. Unless otherwise specified in this rule, the definitions given in 7 MCAR § 1.210 B and C shall apply to the terms used in this rule, as appropriate.

B. Licensing. The procedures and conditions for licensing of water well contractors which are contained in 7 MCAR § 1.211 A.through G. shall apply to the licensing of explorers, except that experience in supervising the construction of borings need not have been gained in Minnesota.

C. Explorer Responsibilities:

1. No person shall construct or cause to be constructed any exploratory boring within this state unless he possesses a valid explorer's license issued by the commissioner.

2. The explorer shall be responsible for the construction and abandonment of all exploratory borings completed under his license.

D. Procedures for location, construction and abandonment of exploratory borings:

1. Location and construction:

a. An exploratory boring shall be located in accordance with the isolation distances from

sources of contamination which are specified in 7 MCAR § 1.217 C.1.a. through e.

b. An exploratory boring shall be constructed in a location and maintained in such a manner as to prevent all known sources of contamination from entering the boring at any time.

c. Any boring which encounters a cavernous limestone formation shall be cased and grouted to prevent the introduction of surface water into the groundwater and to prevent the passage of water from one aquifer to another. The casing and grouting procedures are prescribed in 7 MCAR § 1.220 A., C. and H.

d. No boring shall be open except during the time when it is actually being drilled or logged.

2. Abandonment:

a. Abandonment of all exploratory borings shall be carried out in accordance with the provisions of Chap. 156 A and these rules (7 MCAR § 1.210-.225) as appropiate.

b. Abandonment, whether temporary or permanent, shall be undertaken immediately upon completion of drilling activities.

c. Temporary Abandonment:

i. A boring which is temporarily abandoned shall be cased from bedrock or the bottom

of the boring, to one foot above the ground surface, or if in a flood plain at least two feet above the level of the highest flood of record, and protected with a water-tight cap which will prevent any surface contamination from entering the boring.

ii. Any boring which is temporarily abandoned shall be marked and protected with four steel posts as prescribed in 7 MCAR § 1.217 C.4.b.

iii. A boring shall not be temporarily abandoned for more than five years.

d. Permanent abandonment:

i. Whenever the explorer determines that a boring need not remain open any longer, or whenever he is about to lose the right to explore, the explorer shall permanently abandon the boring in the manner prescribed in these rules.

ii. A boring which is permanently abandoned shall be completely filled in the manner and with the materials prescribed in 7 MCAR § 1.218 C.2.a. through e.

e. Abandonment Report:

The abandonment report required by Minn. Stat. § 156A.017, subd. 8 shall specify whether

the boring is being temporarily or permanently abandoned. A separate abandonment report shall be filed when a temporarily abandoned boring is permanently abandoned.

E. Any request for modification of the provisions of rules applicable to exploratory borings shall be submitted according to the procedure prescribed in 7 MCAR § 1.210D.3.a. and b.

SF-00006-01

AG copy - POST HEARING REVISION

STATE OF MINNESOTA

DEPARTMENT : HEALTH

Office Memorandum

RECEIVED
OCT 20 1980
ADMINISTRATIVE HEARINGS

TO : Richard Luis, Hearing Examiner
Office of Administrative Hearings

DATE: October 20, 1980

FROM : Roger De Roos, Director
Division of Environmental Health
J Boucrard, for

PHONE: 5320

SUBJECT: In the Matter of Rule Relating to Mineral Explorers and Exploratory Borings, and Proposed Amendments to Rules Relating to Water Well Construction and the Use of Plastic Casing.

Attached hereto are the response documents submitted by the Department of Health, as part of the hearing record in the above-entitled matter.

The documents include:

Response to Comments to Proposed Rules and Amendments to Existing Rules (23 pages);

Post Hearing Revision of 7 MCAR § 1.225. Rule Relating to Explorers and Exploratory Borings (18 pages).

In addition to citizen comments which you had received and forwarded to the department through Friday, October 17, 1980, we are in further receipt of comments by Tim Jenkins (received 10/20/80) and Robert Pigeon (dated 10/16/80, received 10/20/80). All of the aforementioned comments have been taken into account in the agency's response document.

Attachments

xc: William Miller, Special Assistant Attorney General
Health Law Division.

STATE OF MINNESOTA

COUNTY OF HENNEPIN

RECEIVED
OCT 20 1980
ADMINISTRATIVE HEARINGS

BEFORE THE MINNESOTA COMMISSIONER OF HEALTH

In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings, and Proposed Amendments to Rules Relating to Water Well Construction and the Use of Plastic Casing

Response to Comments to Proposed Rule and Amendments to Existing Rules.

Pursuant to Minn. Laws 1980 Chap. 535, the commissioner of health proposed amendments to the Water Well Construction Code and a new rule to regulate mineral explorers. Amendments were also proposed regarding the use of plastic well casing. A hearing on the proposed rule and amendments was held on September 30, 1980, before Richard Luis, Hearing Examiner with the Office of Administrative Hearings. Numerous comments were made at the hearing. At the request of a number of commentors and the agency, the Hearing Examiner decided that the hearing record should remain open for additional comments until 4:30 p.m., October 20, 1980.

This document constitutes the agency's response to these comments. This document also includes appropriate revisions which are being made in response to some of those comments.

Mineral Exploration

Public Comments and Agency Response:

The comments made regarding the proposed mineral exploration rule and related amendments to the Water Well Construction

Code generally fell into two broad categories, those made by or on behalf of the exploration industry and those made by private citizens or citizen groups.

INDUSTRY COMMENTS:

Persons who spoke on behalf of the mineral exploration industry generally had the same comments, so these will be addressed as a group, even though not every industry spokesman did not make every point.

1. One concern shared by all industry spokesmen is that the rule and amendments were too confusing in the form which was proposed. They objected to the fact that the rule as proposed referred to applicable provisions of the Water Well Construction Code, without specifying which particular portions of the code would apply to mineral explorers. Prior to the hearing, a similar comment was made by the Department of Natural Resources which provides consultation on amendments to the well code. In addition, industry representatives expressed concern over the confusion they perceived as existing with the use of the terms "explorer," "applicant" and "licensee" and the manner in which these were used in the proposed rule.

These two issues have been addressed by the Minnesota Department of Health in the revised version of the rule which is attached hereto and made a part hereof. The revised version of 7 MCAR § 1.225 incorporated all the portions of the well code which are appropriate to exploratory borings.[1] In addition, the portions containing the

[1]The revision will be discussed in its entirety below, in a section entitled "Explanation of Rule Revision."

procedure for licensing and examination have been redrafted to reflect the difference between the water well contractors' and mineral explorers' licensing programs. The revision makes clear how the explorer obtains a license and the conditions which must be met in order for the license to be valid.

2. A second problem which industry speakers were concerned with relates to the matter of a private landowner who wishes to explore on his own land. Under the revised rule it is clear that anyone including a private landowner, can be licensed as an explorer, as long as a responsible individual has been designated to oversee the exploration activities.

3. A third concern which a few industry speakers expressed relates to the inclusion of requirements for construction and location of exploratory borings. The amendments to Chap. 156A. which were made in the 1980 session clearly do authorize the imposition of standards for location and construction of exploratory borings. This authority derives from the following sources: The legislative intent as stated in Minn. Stat. § 156A.01, specifies that protection of groundwater and prevention of diseases which might be caused by contamination of groundwater are the goals to be achieved by the regulation to be undertaken pursuant to Chapter 156A. To the extent that exploratory borings can serve as sources or conduits for contamination in much the same way that water wells can, they should be similarly controlled. For the purpose of achieving groundwater protection,

there is no less a need to prevent the need to prevent entry of contaminants through exploratory bore holes. The chance for such contamination is just as great as it is through water wells. The long-range consequences of such entry can be the same. The entry of contaminants can best be prevented by using certain construction techniques in vulnerable areas and by locating a boring a certain distance away from potential sources of contamination. The potential hazards created by locating a boring close to a source of contamination becomes even more threatening when a boring is left in a temporarily abandoned condition for some period of time.

The amendments clearly require that the person who will supervise exploratory borings must, unless he meets certain qualifications (Laws 1980 Ch. 594, § 8, subd. 2), be examined on those portions of the well code which relate to construction, location and abandonment. The legislature would not have required that the responsible individual be examined on those specific portions of the code unless it intended that those portions of the code should govern the explorer's activities in these areas. To argue otherwise leads to an absurd result. Principles of statutory construction dictate that one should not impute to the legislature a result which is absurd, especially when the stated intent clearly points to a different and reasonable result.

Further evidence of the legislature's intent can be found in a letter by Representative Mary Murphy to the Hearing Examiner,

dated October, 1980. Representative Murphy was one of the authors of Chapter 535. In her letter she states clearly that the legislature certainly did intend that construction and location standards should apply to exploratory borings.

The industry arguments are based on a narrow reading of the law, specifically by reading only an isolated portion of the bill, while disregarding all the related provisions which clearly do authorize imposition of such requirements. As for the industry's reliance on staff drafts of early versions of the bill, those do not in any way constitute the kind of evidence of legislative intent which would be received as such in any judicial proceeding in Minnesota. This point was also made by Mr. Thomas Triplett who commented later in the proceeding. Since it is clear that the commissioner does indeed have authority to impose construction and location requirements, the industry's focus on a procedural basis for opposition, combined the with lack of industry opposition on any substantive ground relating to impossibility or difficulty of implementation, the industry's position on this point is totally without basis and therefore cannot prevail.

4. A fourth point raised by an industry spokesman questioned the need for requiring that the casing for a temporarily abandoned boring, constructed in a floodplain, be brought up well above the highest flood level of record when a watertight cap was also required. In the revised rule the term "overlapping" has been substituted for the word "watertight." This has been done in recognition of the fact that a watertight cap would

interfere with venting. Since venting a temporarily abandoned boring may be necessary, allowance for the use of a cap which merely overlaps the casing, but is not watertight, would permit venting. With this change in the required capping method, it is even more important that the casing terminate above the highest known flood level of record, in order to prevent the entry of surface contaminants into the boring.

5. One spokesman suggested that it might be appropriate to require that temporarily abandoned borings be filled with a viscous material to prevent movement of water. Such a requirement does not now exist for water wells which are temporarily abandoned and does not seem necessary for a temporarily abandoned boring which is cased and capped according to the provisions of the rule.

One of the exploration companies submitted and several others supported an alternative draft of a rule to be substituted for the rule proposed by the agency. Some of the recommendations offered in that industry draft have been addressed in the agency's revised version. Definitions, roles and relationships have been clarified in accordance with the law. The industry draft would limit the definition of the word "explorer." Since the law does not include in its definition any limitation regarding who has the right to explore, and since the industry has offered no information as to what the addition of this limitation might contribute to the administration of the licensing program, the suggested limitation has not been included in the agency's revision. The industry draft would also substitute for the

license to be issued by the agency, the registration which is to be filed with the Department of Natural Resources. The DNR registration procedure and the information which the DNR requires on its registration form is not adequate for the agency's purposes therefore it is not appropriate for the agency to allow substitution of the one for the other. The matters of location and construction which the industry draft would delete from the agency's proposed rule have been addressed at pp. 3-5.

CITIZEN COMMENTS:

A large number of comments were made by private citizens and various citizen groups. These comments had many points in common, and nearly all of them focused on radiation hazards associated with exploration for uranium. Many of the comments generally fell into one of two groups: one of these is composed of statements, recommendations and suggestions which are not amenable to rulemaking as prescribed in the Administrative Procedures Act (APA) (Minn. Stat. § 15.0412 (1978)), or as authorized in Laws, 1980, Chap. 535. This group of comments includes recommendations for action which lie within the agency's domain of discretionary policy setting, and action which would have to be authorized by the passage of additional legislation before it could be undertaken by the agency. The second group of comments is comprised of suggestions and recommendations which deal with drill site worker protection, and which would require the setting of maximum standards for exposure to radiation and the adoption of additional rules. Each of the points will be discussed separately below.

Inspection

Some of the commentors would require that the agency inspect and sample every drill site before, during and after a boring is made and abandoned. While concerned citizens can urge that the agency institute such a program, it would not be appropriate for the agency to obligate itself by rule to undertake such a program. Absent a specific legislative directive such a program should be undertaken as the result of the agency's policy decision and would be carried out at the agency's own discretion. The agency has already initiated some field monitoring at drill sites during the present drilling season and results obtained from this monitoring effort will be used to determine the future needs of the program.

Abandonment

Many of the commentors objected to the portion of the rule which would allow temporarily abandoned borings to remain in that condition for up to five years, and proposed that the maximum interval permitted for temporary abandonment not exceed 6 months. The agency had information prior to the hearing that some mineral explorers would need up to two years, because of the nature of some of the geophysical logging and measurement techniques which they use. These require the making of measurements across a series of holes which are located at some distance from each other and which may be drilled at different times. The revised version of the rule would allow temporary abandonment for up to two years, after which the boring would have to be

permanently abandoned. Such a shortening of the time interval allowed is a reasonable accomodation to the interests of both parties.

The suggestion that temporarily abandoned borings should be cased in their entirety was made by a few commentors. The purpose for requiring the use of a casing in non-bedrock portions of the bore hole is to prevent collapsing of the unconsolidated formation into the hole. It serves more as an aid to drilling than it serves to prevent the entry of contaminants into the borehole. The space between the bore hole and the outer wall of the casing would have to be grouted in order to guarantee against the entry of contaminants. But since the existing well code does not require grouting except in limited instances, it did not seem appropriate to require it for temporarily abandoned exploratory borings. Imposing such a requirement at this time would amount to a substantial change.[2]

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[2]Many of the suggestions made by commentors would be disapproved if they were to be incorporated into the rule at this time. The APA requires that significant changes made to a rule after it has been published in the State Register and proposed in a public hearing cannot be approved for incorporation into the rule until notice of such significant changes has been published and a hearing has been held to receive comments on those changes. This is the procedure which must be followed when the addition of new material to a proposed rule would result in a "substantial change." Numerous suggestions made regarding the rule under consideration would require the addition of significant new material which would amount to substantial changes to the rule as proposed. Time is of the essence with regard to the licensing and abandonment provisions of the rule, since the law requires that these be in effect by January 1, 1981. The remaining procedural steps which must be carried out before the rule can be adopted do not allow sufficient time to hold another hearing on most of the suggestions which were contained in the comments. These suggestions may be incorporated as amendments to the rule at a later time.

Many commentors urged that the rule require notification of the department whenever an artesian formation is encountered in the course of constructing an exploratory boring, because of the potential hazard created by the flow of water (under pressure) which could contain some radioactivity. Artesian formations do exist in Minnesota, but they are encountered very infrequently. The problems with disturbance of the topsoil which these flows cause are much more serious, based on currently available information, than any problems which might arise because of the flow of radioactive water. For this reason, we do not feel that requiring that the department be notified when such a formation is encountered would result in much greater protection for the public health.

As to the matter of imposing requirements for reclamation of a drill site, the agency is consulting on the need for adopting such procedures with the Department of Natural Resources which has jurisdiction over reclamation associated with mineral activities. The addition of such requirements to the rule could not be made at this time because they would amount to a substantial change. Discussions will also take place with the DNR regarding the need for rules to govern second level exploration activities such as trenching.

Environmental Testing

Many writers urged that explorers be required to monitor for various components of the environment around drill sites, including food chain materials. Imposition of such a requirement at this time would amount to a substantial change. As part

of its on-site inspection program, the agency will do some air and water testing for radioactivity. Once the results of these tests are available, the agency will be in a better position to decide whether additional environmental testing would be appropriate and whether to require that such testing be done by the explorers. Testing of food chain materials would be imposed as a condition to a permit which would be required before any mining or milling could begin.

Human Health:

A majority of the citizen comments urged that the rule require that drill site workers use a variety of radiation monitoring devices while working at the site and to report unusual readings to the agency. There are several reasons why it is not feasible to incorporate these suggestions into the rule at this time. The suggestion that drill site workers be required to wear personal monitoring devices to record radiation dose exposure would be a good one if devices for such use were available. The film-badge type device which is currently available would be of no use for wearing at drill sites since the device is not sensitive to the types of radiation which are emitted by most of the radioactive materials which could rise to the surface of a boring. One of the speakers at the hearing recommended the use of a device which is still in the development stage. There are several of these which are currently being evaluated, but since none are yet available for routine use, it would not be appropriate to require the use of such devices by rule.

As to the matter of requiring that the agency be notified when monitoring devices indicate that certain levels of radiation have been exceeded, such levels may be imposed in the future when more experience is gained regarding possible levels, and when the agency has had an opportunity to study the matter at greater length. Existing radiation protection levels which were set for use under very specific conditions cannot be readily translated into levels which would be meaningful in the field setting. As was noted in some of the comments, there are currently no maximum levels for radiation exposure of drill site workers. The agency does not presently have sufficient information with which to set such levels, and therefore, could not justify adopting such levels by rule at the present time.

Another commentor suggested that education of the public and of drill site workers be undertaken to inform people of the potential hazards associated with exploration for uranium. This activity should definitely be encouraged at (various levels) and is one which can be undertaken independently of any rule.

Additional Comments:

Many of the comments which were made cannot be addressed in the context of the rule under consideration because the activities which these comments suggest would clearly exceed the existing authority of the commissioner of health. These include: the requirement that a public hearing be held before any boring can be made, or before a permit can be issued; the requirement that township boards vote on whether to issue permits; the appropriation of additional moneys to agencies for

additional monitoring, and the imposition of a moratorium on exploration activities until certain conditions have been met. Since each of these clearly exceeds the authority granted under Chapter 535, or under any other health statutes, those suggestions would first have to be acted upon by the Legislature.

Numerous changes were made to the rule as proposed, in response to comments made during the comment period. These have been incorporated into the Post Hearing Revision of the rule. To a very large extent, the revision merely incorporates (and repeats) language from the well code. The few differences between the Post Hearing Revision and the well code relating to licensing reflect differences between the water well contracting industry and the mineral exploration industry. These differences, which were repeatedly emphasized by the industry representatives, have been taken into account and addressed, as noted in the Explanation to the Post Hearing Revision. To the extent that these changes are made at the request of the group which would be most directly affected, and since few of the industry representatives who spoke at the hearing raised significant objects to the procedures contained in the well code, none of these changes in the revised version should be viewed as being significant.

The one change which might be viewed as significant, relates to the change of permissible interval for temporary abandonment. The proposed rule allowed for five years. At the hearing, opponents suggested a 6-month maximum. Since the industry had abundant opportunity to respond to these suggestions but failed to do so, a reduction from five to two years ought not be viewed as

a substantial change. In addition, an explorer who cannot comply with the two-year interval could petition for a waiver from that requirement.

PLASTIC CASING

At the hearing, a single person spoke to the proposed amendments to the rule relating to plastic casing, 7MCAR § 1.224. The speaker opposed the agency proposal to eliminate the 5-inch minimum, but offered no basis for his opposition. One post-hearing comment expressed support for the repeal of the 5-inch minimum. Since there have been no grounds offered to justify a reversal of the agency's proposal, the amendment to 7MCAR § 1.224, for deletion of Part C, remains as proposed.

EXPLANATION OF POST-HEARING REVISION

As was noted earlier, the rule as proposed and published in the State Register, 5 S.R. 268, has been revised as a result of the nearly unanimous recommendation made at the hearing to incorporate the relevant portions of the well code into the mineral exploration rule.

Each portion of the rule as revised will be discussed separately, tracing the origin of the language either to the well code or to the rule as proposed. See chart, p. 21.

The proposed amendments to 7MCAR § 1.210.B.6 (applicant), B.9 (year of experience), and B.10 (licensee) will not be adopted since those definitions will not be made to apply in the revised version of 7MCAR § 1.225.

7MCAR § 1.225A. Policies. This portion of the revised rule resembles the similarly worded declaration of policy in the well code (contained in § 210.D.1)[3] and the variance provision (contained in § 210.D.3). The third sentence in subpart A.1 comes from subpart C.2 in the rule as proposed. Subpart A.2 was labeled part E. in the rule as proposed.

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[3]Throughout the revision, terms and procedures which apply specifically to exploratory borings have been substituted for those in the well code which applied only to water wells, and portions of the well code which apply only to wells, but are not appropriate for exploratory borings, have not been incorporated in the revision. Well code provisions which are cross-referenced are generally contained in parentheses.

7MCAR § 1.225B. Definitions. The revised rule contains definitions from the well code which were contained in § 210.B and C. The terms "exploratory boring" and "explorer" are defined in the revision, using the same definitions they were given in the statute (Laws, 1980, chap. 535 §§ 3 and 4). In the revision the term "grout" brings together definitional language which was contained in both § 210.C.13 and in § 220.C.2 and 3.

7MCAR § 1.225C. Licensing. Subpart C.1 of the revision repeats the language of subpart C.1 in the rule as proposed.

Subpart C.2 is simply a statement of fact which derives from the statute (Laws 1980, chap. 535, §§ 5 and 8), and is self-explanatory.

Subpart C.3 relating to the license fee and the effective term of a license is based on the well code license fee of $50.00 (§ 211.B.3.b.) and the well code 12-month term (§ 211.F.2). The requirements for designation of a responsible individual, which are authorized in the law (Laws 1980, chap. 535 § 8) are stated in subpart C.3, a and b. These requirements are slightly different from those in the well code because of the different ways in which the two industries function. In the well code, the emphasis is on licensing and examination of the contractor who applies for the license. The well code requires that the contractors "representative" be identified before the license can be issued (§ 211.F.3,5 and 6). In the revision under consideration here, the explorer is given the opportunity to designate a number of "responsible individuals," in order to accommodate the industry's needs. The revision imposes a condition upon

the validity of the license. This mechanism provides the only way by which the agency can achieve its ultimate goal of protecting the public health, by assuring itself that exploration activities are supervised by one who is knowledgeable about the rule. The agency exercises its control by making the license contingent upon the designation of the "responsible individual." The requirement that notification be made at least 10 days prior to the commencement of drilling assures that the agency will have sufficient time in which to decide whether or not it will conduct any field inspection. The requirement is the same as that imposed in the law (Laws 1980, chap. 535 § 8, subd. 4) regarding the need to file information on the location of future borings.

Subpart C.4 contains the requirements to be met before one can qualify as a responsible individual. The $50.00 qualification fee prescribed in subpart C.4.a(1) is the same as the examination fee imposed in the well code (§ 211.B.2(a)). The experience requirement which is imposed in subpart C.4.a.(2) is patterned after that imposed on water well contractors (§ 211.A.1.a) and is the same as that which appeared in the proposed amendment to § 210.B.9.

The procedural requirements imposed in subpart C.4.a.(3) are the same as those imposed for water well contractors (§ 211.C. and D.). The well code provisions on Council evaluation of applicants are not repeated in their entirety. The revision refers to a Council evaluation (as part of the examination process) which will be held under the same circumstances as is provided in the well code for water well contractors.

Subpart C.4.b. is taken directly from the well code (§ 211.B.2.b).

Subpart C.4.c. describes the means by which the Commissioner informs a person as to whether or not he qualifies and therefore can be designated as a responsible individual. This procedure is comparable to the well code procedure for issuance of a license after examination of a driller's representative. The one significant difference in the explorer's revised rule is that no license is issued to the person who has qualified to be a responsible individual. But the net effect is the same. The explorer possesses a conditional license which becomes valid once he has designated a person who has qualified as a responsible individual. With water well contractors, the fully effective license is issued after the contractor or his representative has passed the examination and has filed all the necessary forms and fees (§ 211F.).

Subpart C.5 regarding license revocation and disqualification is similar to the disciplinary procedures contained in the well code (§ 211.G.). Not all of the well code procedures have been incorporated, i.e., license suspension is not included in the revision because the net effect of a suspension for an explorer would be nearly the same as that of a revocation. This is so because of the differences in how the two industries do business and the differences in how the two groups will be licensed -- once the revision takes effect. The disqualification

which is described in subpart C.5 affects the status of a license, i.e., the explorer's license becomes invalid until a new "responsible individual" has been designated.

Subpart C.5 derives from the procedures contained in a similarly titled provision in the well code (§ 211G.). The well code portions dealing with reinstatement of a suspended license were not incorporated into the revision, because as discussed earlier, suspension is not an appropriate disciplinary measure in the regulatory program being undertaken through adoption of this revision.

7MCAR § 1.225.D. Location of Exploratory Borings. This part expands upon the two provisions (D.1.a. and b.) in the proposed version of the rule. The portions of the well code (§ 217.C.1.a. through e.) are repeated almost verbatim in the revision, into subpart D.1. The first sentence after the heading in part D comes from the well code (§ 217.B.2). Subpart D.2. is a worker protection provision which is derived from the well code (§ 217.D.3).

7 MCAR § 1.225.E. General Protection of Groundwater Quality. The language in this part derives from several isolated portions of the well code which relate to the same general topic. Subpart E.1. derives from the well code (§ 220.D.2). Subpart E.2. and E.3. are labeled § 218.A.2. and A.3., respectively, in the well code. Subpart E.4. derives from the well code (§ 220.N.). Subpart E.5. derives from the well code (§ 220.Q.). Subpart E.6. derives from the well code (§ 220.I.1.). Subpart E.7. resembles the well code (§ 218.B.1.) but goes further than

the relevant well code provision, to require that construction of an exploratory boring should also be carried out in a manner so as to prevent contamination of the groundwater. Subpart E.8. was included in the proposed version, § 225.D.1.c. and is contained in the well code (§ 220H.4.). The last sentence in that subpart of the proposed version has been deleted from the revision so as to allow explorers to choose whatever casing and grouting method will best achieve the result sought.

7MCAR § 1.225.F. Abandonment. The first two sentences of subpart F.1. were labeled D.2.a. and b. in the proposed rule. The last two sentences which have been added to this portion of the revision derive from the well code (§ 218.C., first paragraph).

Subpart F.2. relating to temporary abandonment derives in part from the rule as proposed and from the well code. Subparts F.2.a. and b. come from the well code (§ 218.C.1.b. and c. respectively). Subpart F.2.c. expands upon the proposed rule where it was labeled D.2.c.(1) and is derived from the well code (§ 218C.1). In the first sentence, the imposition of a requirement for construction which will prevent the transfer of water from one aquifer to the other is intended to achieve the same effect as is produced by the well code prohibition against multi-aquifer wells (§ 220.H.4.). The remainder of the revised subpart is the same as in the proposed version with the exception of the change in the requirement for capping which was addressed earlier in the discussion of industry comments (§ 224F.4).

Subpart F.2.d. was labeled D.2.c.(2) in the rule as proposed. The revised version incorporates the well code language regarding the material and placement requirements for the marking posts (§ 224.F.4.b.).

Subpart F.2.e. was labeled D.2.c.(3) in the proposed version. The time allowed for leaving a boring in a temporarily abandoned condition has been reduced from 5 to 2 years as a result of hearing testimony. This point was addressed at greater length earlier in the response to public comments section, p. __. Subpart F.3.a. was labeled D.2.d.1 in the proposed rule. A new sentence has been added in the revised version which states how permanent abandonment is to be done. A similar provision is contained in the well code (§ 218.C.2.a.). Subparts F.3.b., c. and d. are contained in the well code (§ 218.C.2.b., c., and d., respectively). Subpart F.3.e. is contained in the well code (§ 218.C.2.e.(3)). Subpart F.3.f. is contained in the well code (§ 218.F.2.e.(5)). Subpart F.3.g. derives from the well code (§ 218.F.2.a. and e.(2)). Subpart F.4. was labeled D.2.e. in the proposed version. The revised version includes a reference to the 30-day reporting time, which is prescribed in the law.

The provision which was labeled section E in the proposed rule has been relabeled section A.2.b. (and expanded to incorporate the language referenced from the well code) in the revised version.

CHART TRACING ORIGIN OF LANGUAGE CONTAINED IN POST HEARING REVISION.

Post hearing revision	Proposed rule	Well code
225 A.	210 C. 2; 225 E.	210 D.1,3.
225 B.	210 B. 6, 9, 10.	210 B, C; 220 C.2, 3.
225 C.1.	225 C.1.	---
225 C.2.	---	---
225 C.3.	---	211 B.3.b,; 211 F.2, 3, 5, 6.
225 C. 4. a (1).	---	211 B. 2. a.
225 C. 4. a (2).	210 B. 9.	211 A. 1. a.
225 C. 4. a (3).	---	211 C., D.
225 C. 4. b.	---	211 B. 2. b.
225 C. 4. c.	---	211 F.
225 C. 5.	---	211 G.
225 D. 1.	225 D. 1. a, b.	217 B. 2; C.1.a thru e.
225 D. 2.	---	217 D. 3.
225 E. 1.	---	220 D. 2.
225 E. 2.	---	218 A. 2.
225 E. 3.	---	218 A. 3.
225 E. 4.	---	220 N.
225 E. 5	---	220 Q.
225 E. 6.	---	220 I.1.
225 E. 7.	---	218 B. 1.
225 E. 8.	225 D. 1. c.	220 H. 4.

Post hearing revision	Proposed rule	Well code
225 F. 1.	225 D. 2. a, b.	218 C.
225 F. 2. a, b.	---	218 C. 1. b, c.
225 F. 2. c.	225 D. 2. c (1).	218 C.1; 224 F. 4.
225 F. 2. d.	225 D. 2. c (2).	224 F. 4. b.
225 F. 2. e.	225 D. 2. c (3).	---
225 F. 3. a.	225 D. 2. d (1).	218 C. 2. a.
225 F. 3. b,c,d.	---	218 C. 2. b,c,d.
225 F. 3. e.	---	218 C. 2. e (3).
225 F. 3. f.	---	218 F. 2. e (5).
225 F. 3. g.	---	218 F. 2. a, e(2).
225 F. 4.	225 D. 2. e.	218 C. 2. g.

RECEIVED POST HEARING REVISION
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ADMINISTRATIVE HEARINGS

7MCAR § 1.225 Rule Relating to Explorers and Exploratory Borings.

strikeouts indicate deletions from this version in Rules as Adopted

A. Policies.

1. This rule shall apply to all exploratory borings constructed in the State of Minnesota except those specifically exempted by the Minn. Stat. § 156A.02, subd. 5. Those aspects covered are licensing of explorers ~~and~~ the examination of responsible individuals, the proper abandonment of exploratory borings ~~and the proper isolation of exploratory borings from possible sources of contamination~~, to protect the quality of groundwater aquifers. The explorer shall be responsible for the construction and abandonment of all exploratory borings completed under his license. CHE 2

2. Modification by the Commissioner.

a. When the strict application of any provision of this rule presents practical difficulties or unusual hardships, the Commissioner, in a specific instance, may modify the application of such provision consistent with the general purpose of this rule and the Act and upon such conditions as are necessary, in the opinion of the Commissioner, to protect the ground water of the State and the health, safety, and general well-being of persons using or potential users of ground water.

b. Any request for modification shall be submitted to the Commissioner in writing and shall be signed by the licensed explorer and the designated responsible individual. Such request shall specify in detail the nature of the modification being

sought, the reasons therefor, and the special precautions to be taken to avoid contamination of the ground water. The request shall also include: the proposed boring depth, casing type and depth, method of construction and grouting, geological conditions likely to be encountered, and location of the boring and of possible sources of contamination. Whether or not the request is granted, the Commissioner shall state in detail the reasons for the decision.

B. Definitions.

For the purpose of this rule, the following terms or phrases shall have the meaning given them, except where the context clearly indicates otherwise.

1. "Aquifer" means a water-bearing formation (soil or rock horizon).

2. "Act" means Minnesota Statutes §§ 156A.01-156A.08, as amended, under which this rule is promulgated.

3. "Annular space" means the space between two cylindrical objects one of which surrounds the other, such as the space between a drillhole and a casing pipe, or between a casing pipe and liner pipe.

4. "APA" means the Administrative Procedure Act, Chapter 15, Minnesota Statutes.

5. "Casing" means an impervious durable pipe placed in a boring to prevent the walls from caving and to seal off surface drainage or undesirable water, gas or other fluids to prevent their entering the boring and the ground water.

6. "Cesspool" means an underground pit into which raw household sewage or other untreated liquid waste is discharged and from which the liquid seeps into the surrounding soil or is otherwise removed.

7. "Commissioner" means the commissioner of health or his or her authorized representative.

8. "Council" means the Water Well Contractors and Exploratory Borers Advisory Council, created pursuant to the provisions of Minnesota Statutes § 156A.06.

9. "Established ground surface" means the intended or actual finished grade (elevation) of the surface of the ground at the site of the exploratory boring.

10. "Exploratory boring" means any surface drilling done for the exploration of oil, natural gas or metallic minerals as defined in Minnesota Statutes, Section 156A.02, subdivision 5.

11. "Explorer" means a person who has the right to drill any exploratory boring.

12. "Geological material" means all materials penetrated in drilling an exploratory boring.

a. The following table lists materials other than consolidated rock classified according to average particle size (Wentworth 1922):

Particle Diameters

Material	Millimeters	Inches	Screen Slot No. From	To
Clay	Up to - 0.005	Up to 0.0002		
Silt	0.005 - 0.062	0.0002 - 0.0025		
Fine Sand	0.062 - 0.250	0.0025 - 0.010	2	10
Medium Sand	0.250 - 0.50	0.010 - 0.020	10	20
Coarse Sand	0.50 - 1.00	0.020 - 0.040	20	40
Very Coarse Sand	1.00 - 2.00	0.040 - 0.080	40	80
Fine Gravel	2.00 - 4.00	0.080 - 0.160	80	160
Coarse Gravel	4.00 - 62.50	0.160 - 2.50	160 & larger	
Cobbles	62.5 - 250.0	2.50 - 10.0		
Boulders	250.0 and larger	10.0 and larger		

b. ~~"Alluvium" is a general term for clay, silt, sand,~~ gravel or similar unconsolidated material deposited during comparative recent geologic time by a stream or other body of running water as a sorted or semi-sorted sediment.

c. "Glacial drift (unconsolidated)" means a general term applied to all rock material (clay, sand, gravel and boulders) transported by a glacier and deposited directly by or from the ice or by running water emanating from the glacier.

deleted CHE 3

d. "Glacial outwash" means a stratified sand and gravel removed or washed out from a glacier by meltwater streams and deposited in front of or beyond the terminal moraine or the margin of an active glacier.

e. "Hardpan" is a term to be avoided if possible, but when used means a hard impervious layer composed chiefly ~~of clay, cemented by relatively insoluble materials, which~~

does not become plastic when mixed with water and definitely limits the downward movement of water and roots.

f. "Shale" means rock consisting of hardened silts and clays. deleted

g. "Sandstone" means cemented or otherwise compacted sediment composed predominately of sand-sized quartz grains..

h. "Limestone" means rock which contains at least 80% of carbonates of calcium and has strong reaction with HCl (muriatic acid).

i. "Dolomite" means rock which contains at least 80% of carbonates of magnesium and has a weak reaction with HCl (muriatic acid). CHE 4 deleted

j. "Gypsum" means a soft light colored formation of calcium sulfate crystals and may be found as streaks in a shale formation.

13. "Grout" means neat cement, concrete, heavy drilling fluid or heavy bentonite slurry.

a. "Neat cement" means a mixture of 1 bag (94 pounds) of Portland cement meeting the standard specifications of ASTM C150-69a, and not more than 6 gallons of clean water. Bentonite up to 2% by weight of cement may be used to reduce shrinkage. Other admixtures meeting the standard specifications of ASTM C494-68 may be used to reduce permeability and/or control time of set.

b. "Concrete" means a mixture of Portland cement, sand and water in the proportion of 1 bag (94 pounds) of Portland cement meeting the standard specifications of ASTM C150-69a, and an equal volume of dry sand and not more than 6 gallons of clean water. Where large volumes are required to fill annular openings, gravel not larger than 1/2-inch size may be added.

c. "Heavy drilling fluid" or "heavy bentonite slurry" shall contain a high percentage of clay or bentonite to minimize shrinkage of the slurry. Bentonite shall contain at least 85% of the mineral monmorillinite and shall meet American Petroleum Institute specification standard 13A (March 1966). Heavy drilling fluid or heavy bentonite slurry shall be of sufficient viscosity to require a time of at least 70 seconds to discharge 1 quart of the material through an API Marsh funnel viscometer. Saline, acid, or alkaline substances or other additives that cause a temporary increase in viscosity of the bentonite slurry are not permitted.

14. "Person" means any natural person, corporation, partnership, or other business association.

15. "Pollution" or "contamination" means the presence or addition of any substance to water which is or may become injurious to the health, safety or welfare of the general public or private individuals and which is or may become injurious to domestic, commercial, industrial, agricultural or other uses which are being made of such water.

16. "Responsible individual" means a person who has met the qualifications prescribed in part C.4.a. and has been approved for designation by the Commissioner in accordance with the terms of part C.4.~~d~~.

17. "Seepage pit" or "dry well" means an underground pit into which a septic tank discharges household sewage or other liquid waste and from which the liquid seeps into the surrounding soil through the bottom and openings in the side of the pit.

18. "Septic tank" means a watertight tank of durable materials through which sewage flows very slowly and in which solids separate from the liquid to be decomposed or broken down by bacterial action.

19. "Sewage" means the water carried waste products from residences, public buildings, including the excrementious or other discharges from the bodies of human beings or animals together with such ground water infiltration and surface water as may be present.

20. "Sewer" means a pipe or conduit carrying sewage or into which sewage may back up.

deleted CHE 3

21. "Static water level" means the distance measured from the established ground surface to the water surface in a boring neither being pumped, nor under the influence of pumping nor flowing under artesian pressure.

22. "Subsurface disposal field," "seepage bed," "drainfield," "percolation system," or "tile absorption field" means a system

composed of open jointed tile lines buried in stones and shallow trenches or beds for final disposal into the ground of sewage effluent from a septic tank. The septic tank effluent is applied to land by distribution beneath the surface through the open jointed lines.

23. "Subterranean gas" means a gas occurring below the land surface. It may be flammable such as methane or highly toxic as hydrogen sulfide and may be associated with ground water.

CHE 3

24. "Water" varieties mean:

a. "Ground water" means the water in the zone of saturation in which all of the pore spaces of the subsurface material are filled with water.

b. "Near surface water" means water in the zone immediately below the ground surface. It may include seepage from barnyards, disposal beds or leakage from sewers, drains, and similar sources of pollution.

c. "Surface water" means water that rests or flows on the surface of the ground.

C. Licensing:

1. No person shall drill, construct or otherwise cause to be made, an exploratory boring unless he possesses, or is employed by one who possesses a valid explorer's license issued by the Commissioner.

2. An explorer engaging in exploratory boring shall obtain a license in accordance with this rule.

3. A person shall annually apply for an explorer's license by submitting to the Commissioner a properly completed application accompanied by a $50.00 license fee, payable to the Treasurer, State of Minnesota. An explorer's license shall be effective for the calendar year for which it is issued.

a. The person applying for an explorer's license shall include the name of the responsible individual who will supervise or oversee the location, construction, and abandonment of exploratory borings on behalf of the explorer.

b. If the person applying for the explorer's license does not designate a responsible individual, the commissioner shall issue a conditional license. Such a license is not considered valid for the purpose of engaging in the construction of exploratory borings until a responsible individual has been designated and the Commissioner has been notified of such designation. The notification of designation shall be made at least 10 days prior to the commencement of exploratory boring.

4. Qualification as responsible individual.

a. A person who seeks to qualify for designation as a responsible individual shall

(1) complete and submit an application for qualification to the Commissioner, along with a $50.00 fee which is payable to the Treasurer, State of Minnesota,

(2) ~~have three years of experience in which he or she supervised or personally drilled five exploratory borings per year and provide documentation of such experience, and~~

(3) take and pass an examination on the portions of this rule which relate to mineral exploration activities, or document the fact that he or she is a registered professional engineer or certified professional geologist, in accordance with Minn. Stat. § 156A.071, subd. 2.

(a) A person may take the examination as many times as he desires. Each new application for qualification shall be accompanied by a new fee.

(b) ~~The~~ examination ~~shall consist of any~~ combination of written, oral, or practical work based on the substance of this rule ~~and an evaluation interview by the Council~~. HE 31 CHE 6

b. The Commissioner shall not act upon the application for qualification until he has received ~~reference letters which document the 3 years of experience~~. deletion see HE 30 CHE 7

c. When the Commissioner determines that an individual has met all the qualifications prescribed in part C.4 (above), the Commissioner shall notify the person and shall enter that person's name on a list of persons who qualify for designation as responsible individuals.

5. Revocation of License; Disqualification.

a. The Commissioner or Council may cause an investigation to be made in any case in order to determine whether there has been a violation of the Act or this rule, and, in so doing may request the explorer and/or the designated responsible individual to appear before them to determine the merits of

the situation in question. The Council may make a recommendation to the Commissioner as to whether proceedings under the act and the APA would be appropriate.

b. Any disciplinary action taken under this rule shall comply with the APA.

c. The Commissioner may revoke the license of an explorer and may disqualify a responsible individual upon finding that the explorer or the designated responsible individual has violated the act or this rule. The Commissioner may initiate such proceedings upon his own motion or upon recommendation of the Council.

d. A license may be revoked and a responsible individual may be disqualified until certain conditions are fulfilled and/or for a specified period of time as determined to be most appropriate by the Commissioner. A revoked license shall be returned to the Commissioner.

e. Reinstatement:

(1) An explorer who has had his license revoked may be relicensed by submitting the usual application and fee.

(2) A responsible individual who has been disqualified may be requalified by following the procedure prescribed in C.4.~~b.~~

(3) The Commissioner shall require an investigation or hearing to determine whether an explorer should be issued a new license or a responsible individual should be requalified

provided, however, that in no case shall a new license be issued or a responsible individual be requalified prior to one year after revocation or disqualification has taken effect.

D. Location of Exploratory Borings.

An exploratory boring shall be located so that the boring and its surrounding area can be kept in a sanitary condition.

1. Distance from pollution or source of contamination:

a. an exploratory boring shall be located at least:

(1) One-hundred-fifty feet (150 feet) from a preparation area or storage area of spray materials, commercial fertilizers or chemicals that may result in pollution of the soil or ground water.

(2) One-hundred feet (100 ft.) from a below grade manure storage area if in conformance with Minnesota Pollution Control Regulation SW52(2)(e).

deleted in final form. per HE 23

(3) Seventy-five feet (75 ft.) from cesspools, leaching pits and dry wells.

(4) Fifty feet (50 ft.) from a buried sewer, septic tank, subsurface disposal field, grave, animal or poultry yard or building, privy, or other contaminants that may drain into the soil.

(5) Twenty feet (20 ft.) from a buried sewer constructed of cast-iron pipe or plastic pipe (ASTM 2665 for polyvinyl chloride pipe or ASTM 2661 for acrylonitrile-butadiene-styrene pipe, as prescribed in the Minnesota Plumbing Code, 7MCAR

§ 1.123C.3) with tested watertight joints, a pit or unfilled space below ground surface, a sump or a petroleum storage tank except that an exploratory boring may be drilled closer than 20 feet to an approved basement.

2. An exploratory boring shall not be located within fifteen feet (15 ft.) of a gas line or overhead electric distribution line or twenty-five feet (25 ft.) from an electric transmission line which is in excess of 50 kV. Where there is a question of the voltage in an electrical line the 25-foot distance should be observed or where less distance is required the utility company should be consulted for their recommendation for safe distances.

deleted

E. General Protection of Groundwater Quality.

1. Drilling mud additives shall be stored in clean containers and shall be free of material that may adversely affect the aquifer.

2. Water used for cooling parts of engines, air compressors, or other equipment or water used for air conditioning, shall not be returned into the boring.

3. An exploratory boring shall not be used for disposal of surface water, near surface water, or ground water or any other liquid, gas or chemical.

4. Water used for drilling, development or rehabilitation purposes, other than from the boring itself, shall be chlorinated clear water containing a free chlorine residual at the time

of use and be conveyed in clean sanitary containers or water lines.

5. Drilling mud, cuttings and discharged water shall not be disposed in a manner so as to create damage to public or private property.

6. Exploratory borings encountering flowing artesian conditions should be constructed to prevent erosion of the aquifer or the overlying confining mantle. deleted.

7. An exploratory boring shall be constructed and maintained in such a manner as to prevent all known sources of contamination from entering the boring at any time.

8. Any boring which encounters a cavernous limestone formation shall be cased and grouted to prevent the introduction of surface water into the ground water and to prevent the passage of water from one aquifer to another.

~~F.~~ Abandonment of Exploratory Borings.

1. Abandonment of all exploratory borings shall be carried out in accordance with the provisions of chapter 156A and this rule. Abandonment, whether temporary or permanent, shall be undertaken immediately upon completion of drilling activities. The Commissioner may order that an exploratory boring be sampled and any contamination be removed prior to abandonment. If an exploratory boring provides a potential or actual source or channel of contamination for an aquifer, the Commissioner may order that the boring be permanently abandoned.

2. Temporary abandonment.

a. A temporarily abandoned exploratory boring shall be maintained whereby it is not a source or channel of contamination for any aquifer.

b. Until a boring is permanently abandoned, all provisions for protection of the ground water against contamination and pollution and for maintaining satisfactory sanitary conditions around the boring shall be carried out.

c. A boring which is temporarily abandoned shall be constructed to prevent the introduction of surface contaminants into the boring to prevent the passage of water from one aquifer to another. At the minimum, a temporarily abandoned boring shall be cased from bedrock or from the bottom of the boring if the boring terminates in unconsolidated materials, to a point one foot above the ground surface, or if in a flood plain, at least two feet above the level of the highest flood of record. The casing shall be protected with an overlapping cap which will prevent any surface contamination from entering the boring.

d. Any boring which is temporarily abandoned shall be marked and protected with four steel posts (schedule 40 steel pipe) of at least 4-inch diameter at equal distances from each other and which are placed 2 feet from the center of the casing. Such posts shall be installed to a depth of 4 feet into solid ground, or to a depth of 2 feet if each post is surrounded with 1 foot of concrete to a depth of 2 feet.

e. A boring shall not be temporarily abandoned for more than ~~two~~ years. HE 38

3. Permanent abandonment.

a. Whenever the explorer determines that a boring need not remain open any longer, or whenever he is about to lose the right to explore, the explorer shall permanently abandon the boring. The boring shall be filled with grout to prevent contaminating materials from entering the water-bearing ground formations.

b. All materials, debris and obstructions that may interfere with sealing operations shall be removed from the boring. Liner pipe shall be removed or perforated when necessary to assure placement of an effective seal. The Commissioner shall be consulted for instruction in case of abandonment of a contaminated boring or where there is a question of proper procedure.

c. All casing and screen may be salvaged except casing that has been cemented in place. The boring shall be filled with appropriate sealing materials as described in subpart F.3.g. prior to removal of the casing.

d. The top of the hole shall be filled with 10 feet of cement or concrete grout to within 2 feet of the land surface. Casing remaining in the hole shall be cut off at least 2 feet below land surface. The remaining top 2 feet of hole shall be filled with native topsoil.

e. When concrete, cement or heavy drilling fluid is used as a grout material, it shall be inserted in the boring through a grout pipe from the bottom of the boring upward to the surface under pressure.

f. The flow in a boring encountering flowing artesian conditions[1] shall be confined if possible; and the boring abandoned in accordance with this rule.

g. A permanently abandoned boring shall be filled and sealed using one or more of the following substances in accordance with the geological materials penetrated.

(1) The section of a boring in unconsolidated deposits shall be filled with neat cement, concrete, or heavy drilling fluid to provide a permeability no greater than the natural condition.

(2) The section of a boring in a rock formation shall be filled with neat cement or concrete.

(3) The section of a boring in a cavernous or creviced rock (such as cavernous limestone or creviced granite, etc.) shall be filled with concrete or neat cement or alternate

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[1]Proper judgment shall be exercised in the feasibility and practicability of sealing a boring encountering flowing artesian conditions. In some cases the confining formation may have been so badly disturbed that sealing may only cause the flow to discharge in a less appropriate location. In other situations, the flow may have eroded so much material that the landscape has taken on the appearance of a natural spring. The sealing in this case may be impractical, if not impossible.

layers of concrete or neat cement and gravel or stone aggregate. At the top of the cavernous or creviced formation, the filling shall be completed by a layer of neat cement or concrete extending at least ten feet (10 feet) into the above overlying formation, and finished as provided in these rules.

(4) A boring so large that the use of neat cement, concrete or heavy drilling fluid is impractical, may be sealed with other materials subject to the approval of the Commissioner.

4. Abandonment Report. Within 30 days of temporary or permanent abandonment, the explorer shall submit an abandonment report, as required by Minnesota Statutes § 156A.017, HE 38 Subdivision 8, to the Commissioner. The abandonment report shall specify whether the boring is being temporarily or permanently abandoned. A separate abandonment report shall be filed when a temporarily abandoned boring is permanently abandoned.

STATE OF MINNESOTA)
)ss.
COUNTY OF HENNEPIN)

In the Matter of Proposed
New Rules Relating to Mineral
Explorers and Exploratory
Borings, and Proposed
Amendments to Rules Relating
to Water Well Construction and
the Use of Plastic Casing

AFFIDAVIT
OF MAILING

Deborah Nelsen, being first duly sworn, deposes and says:

That on the 29th day of August, 1980, at the City of Minneapolis, County of Hennepin, State of Minnesota, she served the attached Notice of Hearing by depositing in the United States mail at said City of Minneapolis, a true and correct copy thereof, properly enveloped, with postage prepaid, to all persons and associations at the addresses contained on the list of the Secretary of State, as of July 31, 1980, a copy of which is attached and made a part hereof as Exhibit A, to all persons and associations at the addresses contained in the list of interested persons compiled by the Minnesota Department of Health, and listed on Exhibit B, attached and made a part hereof, as well as to all members of the Minnesota Legislature as of the date of mailing.

Deborah C Nelsen

Subscribed and sworn to before
me this 29th day of Aug., 1980.

Marie B. Tromiczak

MARIE B. TROMICZAK
NOTARY PUBLIC - MINNESOTA
HENNEPIN COUNTY
My Commission Expires Oct 9, 1980

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BEGALKA D REV
212 N ELK ST
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BRIGGS & MORGAN LIBRARIAN
W2200 1ST.NATL.BK.BLDG.
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BURTON HALL
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CITY OF BROOKLYN CENTER
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BOYUM BURDETTE
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CITY OF EAST BETHEL
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9401 FERNBROOK LANE
MAPLE GROVE MN

CITY OF MAPLEWOOD
1380 FROST AVE
MAPLEWOOD MN
55109

CITY OF MINNEPOLIS
3801 66TH AVE NO
BROOKLYN CTR MN
55429

CITY OF MINNETONKA
74600 MINNETONKA BLVD
MINNETONKA MN
55343

CITY OF MORRIS
CITY HALL
MORRIS MN
56244

CITY OF MOUNDSVIEW
2401 HWY 10
ST PAUL MN
55113

CITY OF NEW HOPE
4401 XYLON AVE NO
NEW HOPE MN
55428

CITY OF ORONO
PO BOX 66
CRYSTAL BAY MN
55323

CITY OF ROCHESTER
1421 3RD AVE SE
ROCHESTER MN
55901

CITY OF ROSEMOUNT
BOX 455
ROSEMOUNT MN
55068

CITY OF ROSEVILLE
2701 NO LEXINGTON AVE
ROSEVILLE MN
55113

CITY OF ST CLOUD
CITY HALL
ST CLOUD MN
56301

CITY OF ST LOUIS PARK
5005 MINNETONKA BLVD
ST LOUIS PARK MN
55416

CITY OF ST PAUL
445 CITY HALL
ST PAUL MN
55102

CITY OF SHAKOPEE
129 E 1ST AVE
SHAKOPEE MN
55379

CITY OF SHOREVIEW
4665 NO VICTORIA ST
SHOREVIEW MN
55112

CITY OF WAYZATA
600 RICE STREET
WAYZATA MN
55391

CITY OF WHITE BEAR LAKE
250 MILLER AVE
WHITE BEAR LK MN
55110

CLARKSON J.B.
2350 I.D.S. CENTER
MINNEAPOLIS MN
55402

CLAUSEN PHILLIP
2307 STANDISH ST
ST PAUL MN
55108

COHEN LAWRENCE
1291 1 APPLETREE SQU
MPLS MN
55420

CONCORDIA COLLEGE
DEAN
MOORHEAD MN
56560

CONSUMER SERVICES DEPT CO
5TH FLR METRO SQ BLDG
ST PAUL MN
55101

COUNTY ATTYS COUNCIL
40 NO MILTON ST STE 106
ST PAUL MN
55104

DAKOTA CO MENTAL HEALTH C
744 19THAVE NO
SO ST PAUL MN
55075

DANIELSON RODNEY L.
411 MAIN ST. SU 210
ST. PAUL, MN
55102

DAVIS & FACETTE
6100 EXCELSIOR BLVD
ST LOUIS PK MN
55416

DAWSON JEAN MN GOV'T REPORT
ROOM B12 CAPITOL
ST PAUL MN
55155

DAYTON, HERMAN, ET AL
800 MIDLAND BANK BLDG.
MPLS., MN
55401

DEVELOP DISABILITIES PROG
STATE PLAN 200 CAP SQ.
ST. PAUL, MN
55155

DICKSON GARY L
4665 NO VICTORIA ST
SHOREVIEW MN
55112

DUPONT MIKE
5720 EXCELSIOR BLVD
MPLS MN
55416

DZUGAN KEN ST.PAUL PLANNI
25 W. 4TH. ST.
ST PAUL, MN
55102

E CENTRAL REG. DEV. COMM
COURTHOUSE 18 N VINE ST
HCRA MN
55051

EBELING EDWARD H.
161 W. MAIN
PERHAM MN
56573

ECKLUND WM EELLHABER-LARS
W 1080 1ST NATL BANK
ST PAUL MN
55101

EDINA HEALTH DEPT
4801 W 50TH ST
EDINA MN
55424

ELMER EDWIN W
2961 PLEASANT AVE
MPLS MN
55408

ENDERSON WILLIAM
3644 NICOLLET AVE
MINNEAPOLIS MN
55409

ENNIS A F BOISE CASCADE
PO BOX 713
INTL FALLS MN
56649

ERNEST K LEHMAN & ASSOC.
1409 WILLOW ST.
MPLS MN
55403

FARMER JOHN T MN MFG HOUSE
222 E LITTLE CANADA RD
LITTLE CANADA MN
55117

FARMERS ELEVATOR ASSN
852 GRAIN EXCH BLDG
MPLS MN
55415

FARRELL FRANK BUR NCR
RM 1180 176 E 5TH ST
ST PAUL MN
55101

FARSETH PAUL FOOD STAMPS PRO
WELFARE DEPT 690 N ROBT
ST PAUL MN

FED-ST REPORTS INC.
5203 LEESBURGPIKE S1201
FALLS CHURCH, VA
22041

FELHABER R S
W 1ST NATL BANK BLDG
ST PAUL MN
55101

FERGUSON BEVERLY
2122 CARROLL AVE
ST PAUL MN
55104

FITZGERALD DR BOB
3007 LYNDALE AVE SO
MPLS MN
55408

FITZPATRICK LEO
8138 HENSLOWE AVE S
COTTAGE GROVE MN
55016

FORBES GORDON MINN RRS AS
203 HANOVER 480 CEDAR
ST PAUL MN
55101

FORSBERG AGR SERV
528 SUMMIT AVE
NEW ULM MN
56073

FOX W.E. LINDQUIST & VENNUM
4200 IDSCTR 80 S.8TH ST
MINNEAPOLIS MN
55402

FREDIN CONRAD M
811 FIRST NATL BK BLDG
DULUTH MN
55802

FRIESEN MILLER A
RAHR BD 624 13TH ST S
VIRIGINIA MN
55792

FRISEN FRANK NECA
RM 305 200 SO ROBERT
ST PAUL MN
55107

FURRY CATHERINE
2174 COMMONWEALTH AVE
ST PAUL MN
55108

GEBERT KENNETH L
300 PUBLIC HEALTH CTR
MPLS MN
55415

GEO A HORMEL & CO LAW DEPT
PO BOX 800
AUSTIN MN
55912

GODIN RALPH J
3824 47TH AVE SO
MPLS MN
55406

GOLDBERG PROF MELVIN
WM MITCHELL COL OF LAW
ST PAUL MN
55105

GRAHAM THOS H.
900 MIDLAND BK. BLDG.
MPLS., MN
55401

GREATER MET AREA HOSPITALITY
5152 CEDAR AVE S
MPLS MN
55417

GREEN GARY J
41 SHERELANE AVE
ST PAUL MN
55102

GRUMMERT REV DONALD
1435 ADAMS ST
MPLS MN
55413

H B FULLER CO
2400 KASOTA AVE
ST PAUL MN
55108

HAIDER MARYLOU
1757 PRINCETON AVE
ST PAUL MN
55105

HAIK RAYMOND A
4344 IDS CENTER
MPLS MN
55402

HALLMAN W A
1745 UNIVERSITY AVE
ST PAUL MN
55104

HAMMER HENRY
11445TH AVE SO
ANOKA MN
55303

HARRY, RICK
1000 LAKESHORE DR.
MOOSE LAKE, MN
55767

HARTFELDT WILL
2850 METRO DRIVE STE800
BLOOMINGTON MN
55420

HAUN DR J W GEN MILLS
PO BOX 1113
MPLS MN
55440

HAVEN ROBT TWIN TN TREATMENT
1706 UNIV AVE
ST PAUL MN
55104

HEAD & TRUAN
1007 SOO LINE BLDG
MPLS MN
55402

HEADWATERS REG DEV. COMM
BOX 586 MENTAL HEALTH
BEMIDJI MN
56601

HEALTH CENTRAL
2810 57TH. AVE. NO.
MINNEAPOLIS, MN
55430

HEALTH MANPOWER C LARSON
717 DELAWARE ST SE
MPLS MN
55440

HEANEY BILL
30 N SUPERIOR ST
DULUTH MN
55802

HEARING EX.OFF. M GREENBERG
1745 UNIV AVE
ST PAUL MN
55104

HECKT PAUL
720 AMERICAN CENTER BLD
ST PAUL MN
55101

HEIM, PAUL M.
5501 NORMAN CENTER DR.
MPLS.. MN
55437

HELTZER JAMES DAYTON HUDSON
777 NICOLLET MALL
MPLS MN
55402

HENKEL CORP LAW DEPT
4620 W 77TH ST
MPLS
435

HINIKER JAMES COMM OF ADM
200 ADMIN BLDG
ST PAUL MN

HOGLUND RICHARD C
BOX 755
WILLMAR MN
56201

HOLEY GEORGE
1505 SW SIXTH STREET
FARIBAULT MN
55021

HOLMES EUSTIS ET AL
4610 IDS CENTER
MPLS MN
55402

HORNER WALDORF - KAZIUKEW
PO BOX 3260
ST PAUL MN
55165

HOLSTRAND ANDERSEN & LARSON
PO BOX 130
WILLMAR MN
56201

HUNTER LAWRENCE
STE 115 MALPAK BLDG
ST PAUL MN
55101

HUTCHISON R.M. ANOKA CO.COMP
COURT HOUSE
ANOKA MN
55303

IMS PAUL

ECHO MN

INGRAM ALAN NASW MN CH
22 NO DALE ST
ST PAUL MN

INGVALDSON ERIC
1036 MIDLAND BK BLDG
MPLS MN
55401

INGVALSON VERN MN.FARM BU
1976 WOODDALE BOX 43370
ST PAUL MN
55164

INTERSTATE POWER RW STEELE
1000 MAIN ST
DUBUQUE IA
52001

IVERSON DR JOS DEPT ED
ST OLAF COLLEGE
NORTHFIELD MN
55057

IZAAK WALTON LEAGUE OF AM
111 E FRANKLIN SU 201
MPLS MN
55404

JAIN NIRMAL ENVI PROCESS
1220 GLENWOOD AVE
MPLS MN
55405

JACK JAMES DEPT OF REC PARKS
MANKATO ST UNIVERSITY
MANKATO MN
56001

JENOS INC
525 LAKE AVE SO
DULUTH MN
55801

JENSEN MRS GAYNOLD
111 WEST 107TH ST
MPLS MN
55420

JOHANSEN BUS SERV INC.
11911 HWY. 52
CHAMPLIN, MN
55316

JOHNSON & SANDERSON
ST MARYS HOSPITAL
ROCHESTER MN
55901

JOHNSON CLARENCE IBEW LU 292
3615 37TH AVE S
MPLS MN
55406

JOHNSON G ROBERT
4344 IDS CENTER
MPLS MN
55402

JOHNSON KEL MACI
HANCVER BLDG
ST PAUL MN
55101

JOHNSON LEROY
1207 98TH LANE NW
COON RAPIDS MN
55433

JOHNSON M.D. FRUNDT & FRUNDT

BLUE EARTH MN
56013

JOHNSON LANCE J
265 S LAFAYETTE RD
ST PAUL MN
55107

JORGENSEN DWAIN
645 W 3RD ST
ZUMBROTA
952

KAVANEY RICHARD
1220 NORTHERN FED BLDG
ST PAUL MN
55102

KEENAN RICHARD J
4444 IDS BLDG
MPLS MN
55402

KELLY BARBARA SOLID WASTE
4001 PEEBLEBROOK DR
BLOOMINGTON MN
55437

KNODELL DAVID 31
5 PEAVEY BLDG
MPLS MN
55402

KNOPP TIMOTHY
COLLEGE FORESTRY U OF M
ST PAUL MN
55108

KNUTSON R N GRANNIS ETAL
F J SCHULT BLDG
ST ST PAUL MN
55075

KRAMER ERNEST W
717 DELAWARE ST SE
MPLS MN
55440

KRONLOKKEN J E
10040 NORD RD
BLOOMINGTON MN
55437

LAKE SUPERIOR INDUSTRIAL
828 FIRST AM. BK. BLDG.
DULUTH MN
55802

LANGEVIN, DAVID P.
8748 IDEN AVE. SO.
COTTAGE GROVE MN
55016

LEAGUE WOMEN VOTERS OF MINN
555 WABASHA
ST PAUL MN
55102

LEG.REF.LIB-Z. DEWITT
RM 111 STATE CAPITOL
ST PAUL MN
55155

LEG REPORT SERV-P STURDEV
PO BOX 3259
ANNAPOLIS MD
2140

LEWIS DR.G.M JR.
ABBOTT 110 E 18TH ST
MPLS MN
55403

LOCH DAVID REG 5 REG DEV COG
11 ICWA AVE
STAPLES MN
56479

LOEFFLER DOROTHY MRS
U OF M 101 EDDY HALL
MPLS MN
55455

LUTH SOC SERVICE OF MN
2414 PARK AVE
MPLS MN
55404

MAHCE RICK CARTER
2850 METRO DR SUITE 431
BLOOMINGTON MN
55420

MALECKI JAMES
1 SO STATE ST
NEW ULM MN
56073

MANKATO STAT STUDENT SENATE
CENTENNIAL STUDENT UN
MANKATO MN
56001

MANTHEY T J PICKANDS MATHER
1100 SUPERIOR AVE
CLEVELAND OH
44114

MARLATT RALPH J
1320 SOO LINE BLDG
MPLS MN
55402

MARQUARDT PHILIP
RTE 2 BOX 209
JANESVILLE MN
56048

MASTOR & BALE, LTD.
315 PEAVEY BLDG.
MPLS. MN
55402

MAUL WARREN E.
615 S 7TH ST BOX 15045
MPLS. MN
55415

MCDONALD PHILIP M
2077 SELBY AVE
ST PAUL MN
55104

MCNEILLY GREG MNDSVIEW ED
41 SHERBURNE AVE
ST PAUL MN
55103

MET. WASTE CONTOL COMM.
350 METRO SQ BLG
ST PAUL MN
55101

METROPOLITAN COUNCIL LIBRARY
300 METRO SQUARE
ST PAUL MN
55155

MEYER HERBERT
10824 ZENITH AVE S
BLOOMINGTON MN
55431

MIDLAND GLASS-B.RTO R.J.
P.O. BOX 69
SHAKOPEE, MN
55379

MILLER DAVID S
2845 QUEBEC AVE SO
ST LOUIS PK MN
55426

MILLER PAUL J PHARMACY SERV
ST MARYS HOSP
ROCHESTER MN
55901

MILLER SHERMAN E
RFD 2 BOX 28
WELLS MN
56097

MILLER TOM
6921 YORK AVE SO
EDINA MN
55435

MILLER THOMAS F
1628 IDS CENTER
MPLS MN
55402

MINN ASPHALT PAVEMENT ASSN
555 WABASHA RM 209
ST PAUL MN
55102

MINN ASSN COOPERATIVES
55 SHERBURNE AVE
ST PAUL MN
55103

MINN ASSN VOL SOC SERVICE
1821 UNIV SUITE 389
ST PAUL MN
55114

MINN CHAP ASSOC BLDRS-CONTRS
7204 W 27TH ST
MPLS MN
55426

MINN DACA GRIGGS MIDWAY BLDG
RM SC 2EC 1821 UNIV AVE
ST PAUL MN
55104

MINN DEPT HEALTH J C MCKASY
717 DELAWARE S E
MPLS MN
55440

MINN GOV ENG COUNCIL
722 91ST AVE NE
BLAINE MN
55434

MINN HOSPITAL ASSN
2333 UNIV AVE SE
MPLS MN
55414

MINN LP GAS ASSN
7515 WAYZATA BLVD 106
MPLS MN
55426

MINN.MTR.TRANSP. .J.N.DENN
1821 UNIV.
ST.PAUL MN
55104

MINN MULTI HOUSING ASSN
3100 W LAKE ST
MPLS MN
55416

MINN NEWSPAPER ASSN
84 S 6TH ST STE 400
MPLS MN
55402

MINN PCA WATER QUALITY
1935 W CO RD B 2
ROSEVILLE MN
55113

MINN PETROLEUM COUNCIL
300 NORTHERN FED BLDG
ST PAUL MN
55102

MINN POLLUTION CONTROL AG
1935 W CO RD B2
ROSEVILLE MN
55113

MINN RETAIL FEDERATION
180 METRO SQUARE BLDG
ST PAUL MN
55101

MINN RETAIL HARDWARE ASSN
3033 EXCELSIOR BLVD 313
MPLS MN
55416

MINN RURAL ELECTRIC ASSN
4901 W 77TH ST
MPLS MN
55435

MINN. SERV. STA. ASSN.
1115 2ND. AVE. SO.
MPLS., MN
55403

MINN STATE BD PHARMACY
717 DELAWARE ST SE 4251
MPLS MN
55414

MINN STATE MEDICAL ASSOC
STE 900 AM NATL BK BLDG
STPAUL MN
55101

MINN TEAMSTERS CREDIT UNION
2021 PENN AVE E
MPLS MN
55413

MINN. TBR. PRODUCERS ASSN
333 W. SUPERIOR ST.
DULUTH, MN
55802

MINN.TURKEY GRGWERS ASSN
2303 UNIV AVE
ST PAUL MN
55114

MINN WATER RESOURCES BD
RM 206 555 WABASHA ST
ST PAUL MN
55102

MINN-WISC BOUNDARY AREA COMM
600 2ND ST
HUDSON WI
54016

MINNESOTA AFL-CIO
175 AURORA AVE
ST PAUL MN
55103

MIXA FRANK LK MNTKA CONS DIS
402 E LAKE ST
WAYZATA MN
55391

MN ALTOMOBILE DEALERS ASSN
277 UNIV AVE
ST PAUL MN
55103

MN.BD OF NURSING
717 DELAWARE ST SE
MPLS MN
55414

MN ELECTRICAL ASSN
3100 HUMBOLT SO
MPLS MN
55408

MN REP STATE CENTRAL COMM
555 WABASHA AVE
ST PAUL MN
55102

MN SOC SERV ASS J HOOD
614 PORTLAND
ST PAUL MN
55102

MN ST COUNCIL FOR HANDICAPP
METRO SQ 7TH & ROBERT
ST PAUL MN
55101

MN ST PHARMACEUTICAL ASSN
2469 UNIVERSITY AVE
ST PAUL MN
55114

MOFFITT R C
RM 301 N MPLS CITYHALL
MPLS MN
55415

MOSS DR JEROME
125 PEIK 159 PILLSBURY
MPLS MN
55455

MOSTCA
PO BOX J
PERHAM MN
56573

MOTOR VEHICLE MFRS ASSN
412 MAIN ST (215)
ST PAUL MN
55102

MPIRG
2412 UNIVERSITY AVE SE
MPLS MN
55414

MPLS ASSN RETARDED CITIZENS
2344 NICOLLET AVE. SO.
MPLS., MN
55404

MPLS TRIBUNE CITY DESK
425 PORTLAND AVE
MPLS MN
55415

MT OLIVET ROLLING ACRES
R 1 BOX 576
EXCELSIOR MN
55331

NATL FAMILY INS CO
2147 UNIV AVE
ST PAUL MN
55114

NCEC INC C/O DR DAHLBERG
CONCORDIA COLLEGE
MOORHEAD MN
56560

NELSON HOWARD I

LINDSROM MN
55045

NEMDA
800 ALWORTH BLDG
DULUTH MN
55802

NOZISKA HOWARD
7851 METRO PKWY S 103
MPLS MN
55420

NURSING HOME ADMRS BD EXAMRS
RM 340 717 DELAWARE SE
MPLS MN
55414

NURSING HOME RES ADV CO.
111 E FRANKLIN S210
MPLS MN
55404

NW BELL TEL CO LEGAL DEPT
224 S 5TH ST RM 2000
MPLS MN
55402

NW COUNTRY ELEVATOR ASSN
P.O.BOX.15004COMM.STAT
MPLS., MN
55415

NW REG. DEV. COMM
425 HOEGLAND AVE
CROOKSTON MN
56716

NYGREN GAIL
317 CLIFTON AVE #9
MPLS MN
55403

O'BRIEN J.DENNIS
1100 1ST NATL.BANK BLDG
MINNEAPOLIS MN
55402

O'CONNELL RAY
MN GAS CO 733 MARQ AVE
MPLS MN
55402

OFFICE OF THE GOVERNOR
130 STATE CAPITOL
ST PAUL MN
55101

OLOFSON ARTHUR MBO & MAI
927 SOO LINE BLDG
MPLS MN
55402

OTTER TAIL POWER CO.
215 S. CASCADE ST.
FERGUS FALLS MN
56537

PARKER PAMELA J SUITE 204
METRO SQ BLDG
ST PAUL MN
55101

PAYNE COL ALVIN

DEGRAFF MN
56233

PETERSON DOUG AM RED CROSS
11 CELL PLACE
MPLS MN
55403

PETERSON, H. COMM LABOR&IND.
444 LAFAYETTE RD.5TH FL
ST. PAUL, MN
55101

PHAR MFGRS ASSN GROSSMAN S.
1155 15TH. ST. N.W.
WASHINGTON, DC
20005

PHILLIPS LEGISLATIVE SERV
459 RICE ST
ST PAUL MN
55103

PIDGEON, JOHN C. CITY MGR.
BLOOMINGTON CITY HALL
BLOOMINGTON, MN
55431

PINNETTI NICK M HALEY & ASS.
40 CENTRAL PARK S
NEW YORK NY
10019

PLRC HAMLINE U LAW SCHOOL
1536 HEWITT AVE
ST PAUL MN
55104

POLT THOMAS M
MCCARTHY BLDG
EYOTA MN
55934

POPOVICH PETER S
314 MINN BLDG
ST PAUL MN
55101

PORTER DAVID
3002 27 AVE S
MPLS MN
55406

POYZER ROBT
BOX 675
FERGUS FALLS MN
56357

PRAUSE J.C.
1313 COON RAPIDS BLVD.
COON RAPIDS, MN
55433

PRICE WALT C REISS COAL CO
1011 SO 8TH ST
SHEBOYGAN WI
53081

PUBLIC LAW RESEARCH CENTER
1536 HEWITT AVE
ST PAUL MN
55104

QSS INC
PO BOX 838
FARIBAULT MN
55021

RADMAN RICHARD-LABOR TEMPLE
411 MAIN STREET
ST. PAUL, MN
55102

RALPH BURKE ASSOCIATES
5200 W 73RD ST
MPLS MN
55435

RAMSEY CO MEDICAL SOC
908 AM NATL BK BLDG
ST PAUL MN
55101

RAUENHORST CORP-RONALD G KIRK
7900 XERXES S S-2200
MPLS MN
55431

REAGAN MICHAEL
% MINN LEARNING CTR
BRAINERD MN
56401

REARDON MRS HELEN
1125 S E 6TH ST
WILLMAR MN
56201

RED OWL STORES INC
215 E EXCELSIOR AVE
HOPKINS MN
55343

REGION NINE DEV. COMM.
120 S. BROAD ST.
MANKATO, MN
56001

RENNER R.H. ST PAUL AREA CC
300 OSBORN BLDG.
ST PAUL MN
55102

RICHARDS MONTGOMERY ET AL
1430 RAND TOWER
MPLS MN
55402

RIEKE, DAVID
SCORPION IND. INC.
CROSBY, MN
56441

RITTER, JERRY
1011 NICOLLET MALL
MPLS., MN
55403

ROSENTHAL ABE MN TRANS SERV
SUITE 310 N 1821 UNIV
ST PAUL MN
55104

ROSS ALFRED
6356 WARE RD
LINO LAKES MN
55014

ROYAL ESQUIRE REALTY INC
1612 PIONEER BLDG
ST PAUL MN
55101

SANFORD S M
7000 PORTLAND AVE
RICHFIELD MN
55423

SAX DOVE & STENSON
310 ENDICOTT BLDG
ST PAUL MN
55101

SCARBOROUGH WILLIAM
CIV.ED. U.M.
MORRIS MN
56267

SCHMIDT WARREN WELLCOME MHS
GARDEN CITY MN
56034

SCHNEIDER MAHLON
GREEN GIANT
LESUEUR MN
56058

SCHUTZ LINDA
RM 328 CAPITOL BLDG
ST PAUL MN
55155

SCHWINN, ROBT. P.
1830 SOO LINE BLDG.
MPLS., MN
55402

SE MN REG DEV COMM
301 MARC BK BLDG
ROCHESTER MN
55901

SHABATURA EUGENE R
2833 LAKE AVE. SO.
DULUTH, MN
55802

SIX EAST REG. DEV. COMM.
311 W 6TH ST
WILLMAR MN
56201

SMITH EGE III
PIONEER BLDG
ST PAUL MN
55101

SNYDER, R.W. U OF M
RM 248C CLASS OFF BLDG.
ST PAUL MN
55108

SODERBERG HAROLD J
1500 MIDWEST PLAZA BLDG
MPLS MN
55402

SOUTHWEST REGIONAL DEV CO
25TH & BROADWAY
SLAYTON MN
56172

SPENCER BONNIE FED ST REP
5203 LEESBURG PIKE
FALLS CHURCH VA
22041

SPRAGUE CHARLOTTE B
AREA HOSPITAL BOX 339
WINDOM MN
56101

ST. PAUL FOOD RETAILERS ASSN
555 WABASHA ST. STE.204
ST. PAUL, MN
55102

STATE & FEDERAL AGENCIES
1101-15TH NW
WASHINGTON DC
20005

STD AM LIFE & ANNUITY CO
3801 W 50TH ST
MPLS MN
55410

SULLIVAN J KIRK
P.O. BOX 50
ECISE, IDAHO
83728

TOWNSHIP OF WHITE BEAR
1281 HAMMOND RD
WHITE BEAR LK MN
55110

WATERS, DONNA M.
110506 WINDMILL COURT
CHASKA MN
55318

WHITLOCK MARSHALL DORAR
RM.44 ST. OFF. BLDG.
ST. PAUL, MN
55155

WOZNIAK D D
401 FIRST FED BLDG
ST PAUL MN
55101

STEELWORKERS CREDIT UNION
BOX 250
BABBITT MN
55706

SULLIVAN JEANETTE
COIC SW STATE UNIV
MARSHALL MN
56258

TATE VERN 3M CO
3M CENTER 220/6W
ST PAUL MN
55101

VALLY CENTER DRUG
4827 W 124TH ST
SAVAGE MN
55378

WALZ SAM CO ADMINISTRATION
ANOKA CTY COURTHOUSE
ANOKA MN
55303

WELK G V NORTHERN STATES
414 NICOLLET MALL
MPLS MN
55401

WM. MITCHELL LAW LIB.
875 SUMMIT AVE.
ST. PAUL, MN.
55105

WRIGHT CO COMMUNITY SERVICES
2NW 1ST ST
BUFFALO MN
55313

STONE JOHN F MOSS FLAHERTY
2350 IDS CENTER
MPLS MN
55402

SWANSON DALE
1068 SO LAKE ST
FOREST LAKE MN
55025

TENNESSEN SEN ROBERT J
RM 309 STATE CAPITOL
ST PAUL MN
55165

UNION STOCK YARDS
ATTN PRES
SO ST PAUL MN
55075

VIITALA, W.C. HONEYWELL
HONEYWELL PLAZA
MPLS MN
55408

WAMPLER LINUS DIR USW OF AM
609 PROVIDENCE BLDG
DULUTH MN

WEST CENTRAL REG. DEV.
ADM BLDG,COMMUNITY COLL
FERGUS FALLS MN
56537

WIS FEEDER PIG MARKET CO-OP

FRANCIS CREEK WI

SUDDUTH JR APT 206
2100 BLOOMINGTON AVE SO
MPLS MN
55404

THORNTON, R.J.
107 SO. 15TH. AVE. W.
VIRGINIA, MN
55792

US DEPT OF AGRICULTURE
252 FEDERAL BLDG
ST PAUL MN
55101

VOS LEROY
2137 BURNS AVE
ST PAUL MN
55119

WASHINGTON COUNTY
14900 61ST ST NO
STILLWATER MN
55082

WHITLOCK A G
ECON LAB OSBORN BLDG
ST PAUL MN
55102

WOODSTROM SUSAN
3735 22ND AVE SO
MPLS MN
55407

2 cop.

Grand tot = 449

well drill 450
Expl 1 ov
1,000

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HOTELS, RESORTS, RESTAURANTS

U.S. Soil Conservation Service, 517 Red Courts Bldg., S l Paul (Trailer Parks,etc

MINNESOTA PLUMBING CODE ONLY

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Comm. Exhibit No. 3
File No.
Date

PROPOSED RULES

Pursuant to Minn. Stat. § 15.0412, subd. 4, agencies must hold public hearings on proposed new rules and/or proposed amendment of existing rules. Notice of intent to hold a hearing must be published in the *State Register* at least 30 days prior to the date set for the hearing, along with the full text of the proposed new rule or amendment. The agency shall make at least one free copy of a proposed rule available to any person requesting it.

Pursuant to Minn. Stat. § 15.0412, subd. 5, when a statute, federal law or court order to adopt, suspend or repeal a rule does not allow time for the usual rulemaking process, temporary rules may be proposed. Proposed temporary rules are published in the *State Register*, and for at least 20 days thereafter, interested persons may submit data and views in writing to the proposing agency.

Public Hearings on Agency Rules
September 1-6, 1980

Date	Agency and Rule Matter	Time & Place
Sept. 4	Housing Finance Agency Income Limits for the Home Improvement Program Hearing Examiner: Richard Luis	9:00 a.m., Conference Rm., Capitol Square Bldg., 550 Cedar St., St. Paul, MN 55101

Department of Health
Environmental Health Division

Proposed New Rules Relating to Mineral Explorers and Exploratory Borings, and Proposed Amendments to Rules Relating to Water Well Construction and the Use of Plastic Casing

Notice of Hearing

Notice is hereby given that a public hearing concerning the proposed rules captioned above will be held pursuant to Minn. Stat. § 15.0412, subd. 4 (Supp. 1978) in Room 105, Minnesota Department of Health Building, 717 Delaware Street Southeast, Minneapolis, Minnesota 55440, on Tuesday, September 30, 1980, commencing at 9:30 a.m. The proposed rules may be modified as a result of the hearing process. Therefore, if you are affected in any manner by the proposed rules you are urged to participate in the rule hearing process.

Following the agency's presentation at the hearing, all interested or affected persons will have an opportunity to ask questions and make comments. Statements may be made orally and written material may be submitted. In addition, whether or not an appearance is made at the hearing, written statements or material may be submitted to Richard Luis, Hearing Examiner, Office of Administrative Hearings, Room 300, 1745 University Avenue, St. Paul, Minnesota 55104, telephone: (612) 296-8114, either before the hearing or within five (5) working days after the close of the hearing. The hearing examiner may, at the hearing, order that the record be kept open for a longer period not to exceed 20 calendar days. All such statements will be entered into and become part of the record. For those wishing to submit written statements or exhibits, it is requested that at least three (3) copies be furnished. In addition, it is suggested, to save time and avoid duplication, that those persons, organizations, or associations having a common viewpoint or interest in these proceedings join together where possible and present a single statement in behalf of such interests. The rule hearing procedure is governed by Minn. Stat. §§ 15.0411-15.052, and by 9 MCAR §§ 2.101-2.112 (Minnesota Code of Agency Rules). If you have any questions about the procedure, call or write to the hearing examiner.

Notice is hereby given that twenty-five (25) days prior to the hearing, a Statement of Need and Reasonableness will be available for review at the agency and at the Office of Administrative Hearings. This Statement of Need and Reasonableness will include all of the evidence which the agency intends to present at the hearing to justify both the need for and the reasonableness of the proposed rules. However, additional evidence may be submitted in response to questions raised by interested persons. You are therefore urged to both review the Statement of Need and Reasonableness before the hearing and to attend the hearing. Copies of the Statement of Need and Reasonableness may be obtained from the Office of Administrative Hearings at a minimal charge.

If adopted, the proposals would have the following effects:

1. The proposed new rules would effectuate the statutory requirement that mineral explorers be licensed according to the procedures prescribed in 7 MCAR § 1.211 for water well contractors and to follow certain procedures for the construction and abandonment of exploratory borings; and

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike-outs~~ indicate deletions from proposed rule language. PROPOSED RULES SECTION — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

B. Licensing. ~~The procedures and conditions for licensing of water well contractors which are contained in 7 MCAR § 1.211 A. through G. shall apply to the licensing of explorers, except that experience in supervising the construction of borings need not have been gained in Minnesota.~~

C. Explorer responsibilities.

1. No person shall construct or cause to be constructed any exploratory boring ~~within this state~~ unless he possesses a valid explorer's license issued by the commissioner.

2. ~~The explorer shall be responsible for the construction and abandonment of all exploratory borings completed under his license.~~

D. Procedures for location, construction and abandonment of exploratory borings.

1. Location and construction.

a. An exploratory boring shall be located in accordance with the isolation distances from sources of contamination which are specified in 7 MCAR § 1.217 C.1.a. through e.

b. An exploratory boring shall be constructed in a location and maintained in such a manner as to prevent all known sources of contamination from entering the boring at any time.

c. Any boring which encounters a cavernous limestone formation shall be cased and grouted to prevent the introduction of surface water into the groundwater and to prevent the passage of water from one aquifer to another. The casing and grouting procedures are prescribed in 7 MCAR § 1.220 A., C. and H.

d. No boring shall be open except during the time when it is actually being drilled or logged.

2. Abandonment.

a. Abandonment of all exploratory borings shall be carried out in accordance with the provisions of ch. 156 A and these rules ~~(7 MCAR §§ 1.210-1.225) as appropriate.~~

~~b.~~ Abandonment, whether temporary or permanent, shall be undertaken immediately upon completion of drilling activities.

c. Temporary abandonment.

(1) A boring which is temporarily abandoned shall be cased from bedrock or the bottom of the boring, to one foot above the ground surface or if in a flood plain, at least two feet above the level of the highest flood of record, and protected with ~~a water-tight~~ cap which will prevent any surface contamination from entering the boring.

(2) Any boring which is temporarily abandoned shall be marked and protected with four steel posts ~~as prescribed in 7 MCAR § 1.217 C.4.b.~~

(3) A boring shall not be temporarily abandoned for more than five years.

d. Permanent abandonment.

(1) Whenever the explorer determines that a boring need not remain open any longer, or whenever he is about to lose the right to explore, the explorer shall permanently abandon the boring ~~in the manner prescribed in these rules.~~

(2) ~~A boring which is permanently abandoned shall be completely filled in the manner and with the materials prescribed in 7 MCAR § 1.218 C.2 a. through e.~~

e. Abandonment report. The abandonment report required by Minn. Stat. § 156A.017, subd. 8 shall specify whether the boring is being temporarily or permanently abandoned. A separate abandonment report shall be filed when a temporarily abandoned boring is permanently abandoned.

E. Any request for modification of the provisions of rules applicable to exploratory borings shall be submitted according to the procedure prescribed in 7 MCAR § 1.210 D.3.a. and b.

Amendments as Proposed

7 MCAR § 1.224 Plastic well casing. In addition to complying with 7 MCAR §§ 1.210-1.223, an installer who uses plastic well casing* must comply with the provisions of this rule with regard to construction and installation.

*~~Laws of 1977, ch. 398, and Laws of 1979, ch. 312 permit the use of plastic well casing in certain Minnesota counties. A list of these counties is appended at the end of this rule.~~

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike-outs~~ indicate deletions from proposed rule language. PROPOSED RULES SECTION — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

B.2. Any plastic pipe, couplings, components, solvents, cements, or primers used in water well casing construction shall have the approval of a testing laboratory which has demonstrated the use of unbiased, reliable and appropriate testing methods, as determined by the Commissioner of Health. Such laboratory must approve the material as being intended for use in the transport of potable water. This approval shall be stamped on the pipe as prescribed below.

~~C. Plastic well casing pipe size: Where a submersible pump is to be installed inside a plastic casing, the casing diameter shall be no less than five inch nominal pipe size, as specified in ASTM F 480.~~

Reletter D. as C.

D. ~~E.~~ Technique for joining plastic well casing.

1. Cutting. The installer shall use fine tooth blades with little or no set for cutting the pipe. Pipe ends shall be cut square ~~using a miter box~~. A plastic pipe cutter equipped with extra wide rollers and thin cutting wheels may be used. Standard steel pipe or tubing cutters shall not be used for cutting plastic pipe.

5. ~~(1). allow sufficient time for the joint to cure before the joined pipe can be dropped into the drilled hole. This additional cure time is specified in Table 3.~~

~~Table 3~~
~~Joint Cure Schedule~~

~~Ambient Temperature, °C~~	~~2 to 3 in.~~ ~~SDR 26 and above~~	~~SDR 21 17, 13.5~~	~~3½ to 12 in.~~ ~~SDR 26 and above~~	~~SDR 21 17, 13.5~~
~~15 to 40~~	~~2 h*~~	~~12 h~~	~~6 h~~	~~24 h~~
~~5 to 15~~	~~4 h~~	~~24 h~~	~~12 h~~	~~48 h~~
~~20 to +5~~	~~16 h~~	~~96 h~~	~~48 h~~	~~8 days~~

~~*When the relative humidity is above 60%, increase all of the above times by 50%.~~

E. ~~F.~~ Installation of plastic well casing.

1. The installer shall drill an open hole which is 4 inches larger than nominal casing size where:

a. rock (consolidated as opposed to unconsolidated geological material) is encountered within 25 feet of the surface. The annular space shall be grouted with neat cement or concrete grout as prescribed in 7 MCAR § 1.220 C.

b. rock is encountered at a depth greater than 25 feet from the surface. The casing shall extend at least 5 feet into the stable rock formation. The casing shall be sealed into the rock using neat cement grout. The remaining annular space shall be grouted as prescribed in 7 MCAR § 1.220 C. or F.

c. boulders or unstable geologic conditions require that an oversized hole be drilled in order to install and protect the well casing. The annular space shall be grouted as prescribed in 7 MCAR § 1.220 C. or F.

d. the well screen is to be gravel packed. The gravel pack shall not extend more than 10 feet above the static water level nor within 50 feet of the land surface. The remaining annular space shall be grouted as prescribed in 7 MCAR § 1.220 C. or F.

3. Grouting.

a. The installer shall fill the annular space between the drill hole wall and the casing pipe with grout ~~(defined in 7 MCAR § 1.210)~~ as prescribed in 7 MCAR § 1.220 C. or F. to assure equal loading around the casing in order to prevent collapse or deformation of the casing and to prevent any contamination from entering the well. ~~Native sand may be used in non-artesian wells drilled in outwash material having no clay lense or lenses (a geological stratum composed of clay). The upper 30 feet in any type of well shall be grouted with neat cement grout (defined in 7 MCAR § 1.220 C.3.) using a tremie pipe. A tremie pipe is one which is small enough to fit in the annular space and which carries the grout to the bottom of a hole. The grout shall be fed under pressure from the bottom to the top in one continuous operation.~~

~~b. When drilling a rock well, the installer shall seal the casing pipe into the bedrock using neat cement grout (defined in 7 MCAR § 1.220 C.3.).~~

b. ~~c.~~ Because of its high heat of hydration, grout made of rapid-setting cement is not permitted for use in wells which are cased with PVC pipe.[3]

6. Plastic water well casing shall not be used in wells cased and cement grouted through cavernous rock formations. However, in such formations, plastic casing may be used as an inner casing if surrounded by an outer casing which meets the requirements of 7 MCAR § 1.220A.7.

7. Screws shall not be used to join solvent weld joints.

Department of Natural Resources

Proposed Amendments to Boat and Water Safety Rules

Notice of Hearing

A public hearing concerning the proposed rule amendments will be held in St. Paul on September 25, 1980 at the Minnesota Historical Society Building, 640 Cedar Street, in the Weyerhaeuser Room. The hearing will begin at 7:00 p.m.

The proposed rules may be modified as a result of the hearing process. Therefore, if you are concerned about the content of the rules, you are urged to participate.

Following the agency's presentation at the hearing, all interested or affected persons will have an opportunity to ask questions and make comments. Statements may be made orally and written material may be submitted. In addition, whether or not an appearance is made at the hearing, written statements or material may be submitted to Phyllis Reha, Hearing Examiner, room 300, 1745 University Avenue, St. Paul, MN 55104, telephone (612) 296-6910 either before the hearing or within five working days after the close of the hearing. The hearing examiner may, at the hearing, order that the record be kept open for a longer period not to exceed 20 calendar days. The rule hearing procedure is governed by Minn. Stat. §§ 15.0411-15.1417 and 15.052, and by 9 MCAR §§ 2.101-2.112 (Minnesota Code of Agency Rules). If you have any questions about the procedure, call or write the hearing examiner.

Twenty-five days prior to the hearing, a Statement of Need and Reasonableness will be available for review at the Office of Hearing Examiners. This Statement of Need and Reasonableness will include a summary of all of the evidence which will be presented by the agency at the hearing justifying both the need for and the reasonableness of the proposed rule amendments. Copies of the Statement of Need and Reasonableness may be obtained from the Office of Hearing Examiners at a minimal charge.

Because of legislative changes during the 1975 and 80 sessions, as well as changes in federal regulations and those additions or deletions necessitated by experience, amendments to the current boat and water safety rules have been found to be necessary. Current rules were promulgated in 1972.

The following amendments are proposed:

—the addition of the term "sailboard" as well as several technical corrections in the rules on licensing and marking of watercraft.

—providing that all required safety equipment be provided by the owner of rental watercraft.

—changing technical terms regarding alcohol and controlled substances to conform to statute changes.

—shortening and clarifying the rules of the road for non-motorized watercraft and the use of emergency lights on patrol craft.

—rewriting the required safety equipment rules to conform to new statutes. This includes requirements for lifesaving devices, sound producing devices, fire extinguishers and navigation lights. No substantial change is proposed from existing rules, however.

—changing the technical requirements for certain waterway markers to more closely conform to what is practical and available commercially.

—removing language on skin and SCUBA diving which was preempted by a 1975 statute.

—clarifying permit requirements for temporary structures, buoys and signs.

—deleting reference to an obsolete address in the Department of Natural Resources.

The authority for and subject-matter of the rules are found in Minn. Stat. ch. 361.

The agency estimates that there will be no cost to local public bodies in the state to implement the amendments for the two years immediately following its adoption, within the meaning of Minn. Stat. § 15.0412, subd. 7 (1978).

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike-outs~~ indicate deletions from proposed rule language. PROPOSED RULES SECTION — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

2. The proposed revision to existing rules governing the use of plastic well casing would prescribe procedures for its use where certain geological conditions are encountered and would allow for the use of plastic casing under conditions which permit its safe use throughout the state.

Statutory authority of the Commissioner of Health to promulgate the new rules on mineral exploration is contained in Minn. Laws of 1980, ch. 535, §§ 5 and 8. Statutory authority of the Commissioner of Health to promulgate revisions to rules regarding plastic well casing is contained in Minn. Stat. § 156A.031 (Supp. 1979).

Copies of the proposed amendments are now available and at least one free copy may be obtained by writing to the Minnesota Department of Health, Division of Environmental Health, 717 Delaware Street Southeast, Minneapolis, Minnesota 55440. Additional copies will be available at the door on the date of the hearing.

Notice: Any person may request notification of the date on which the Hearing Examiner's Report will be available, after which date the agency may not take any final action on the rules for a period of five (5) working days. Any person may request notification of the date on which the hearing record has been submitted or resubmitted to the Attorney General by the agency. If you desire to be so notified, you may so indicate at the hearing. After the hearing, you may request notification by sending a written request to the hearing examiner, in the case of the Hearing Examiner's Report, or to the agency, in the case of the agency's submission or resubmission to the Attorney General.

In addition, please be advised that Minn. Stat. ch. 10A requires each lobbyist to register with the State Ethical Practices Board within five days after he commences lobbying. A lobbyist is defined in Minn. Stat. § 10A.01, subd. 11 (Supp. 1979) as any individual:

(a) Engaged for pay or other consideration, or authorized by another individual or association to spend money, who spends more than five hours in any month or more than $250, not including *his own* travel expenses and membership dues, in any year, for the purpose of attempting to influence legislative or administrative action by communicating or urging others to communicate with public officials; or

(b) Who spends more than $250, not including *his own* traveling expenses and membership dues, in any year for the purpose of attempting to influence legislative or administrative action by communicating or urging others to communicate with public officials.

The statute provides certain exceptions. Questions should be directed to the Ethical Practices Board, 41 State Office Building, St. Paul, Minnesota 55155, telephone: (612) 296-5615.

Promulgation of these proposed new rules and amendments will not result in the expenditure of public monies by local government units.

August 8, 1980

George R. Pettersen, MD
Commissioner of Health

Amendments as Proposed

7 MCAR § 1.210 Definitions and policies.

B.2. "Council" means the Water Well Contractors' and Exploratory Borers' Advisory Council created pursuant to the provisions of Minn. Stat. § 156A.06.

B.6. "Applicant" means any person who applies for a water well contractor's or explorer's license pursuant to the Act.

B.9. "Year of experience" for a water well contractor means a year during which the applicant personally drilled five (5) water wells and was actively working in the trade for a period of 1,000 hours under the supervision of a licensed water well contractor. An applicant drilling 1,000 hours per year and completing fewer than five wells per year may qualify, if the experience is gained in constructing one or more large diameter wells (casing outer diameter is ten inches or more) which are more than 500 feet deep. An applicant who seeks to qualify under this provision shall have his license limited to construction of such deep and large diameter wells. ~~A year of experience for an explorer means a year during which the applicant supervised or personally drilled five exploration borings.~~ deleted HE 25

B.10. "Licensee" means a person who is licensed as a water well contractor or explorer pursuant to the provisions of the Act and these rules. deleted HE 25

Rule as Proposed

7 MCAR § 1.225 Rule relating to ~~mineral exploration~~. ~~This rule applies to all explorers who engage in exploratory boring in accordance with the provisions of Minn. Stat. § ch. 156A (as amended by Laws of 1980, ch. 535).~~ deleted HE 27

~~A. Unless otherwise specified in this rule, the definitions given in 7 MCAR § 1.210 B. and C. shall apply to the terms used in this rule, as appropriate.~~ HE 28

STATE OF MINNESOTA

COUNTY OF HENNEPIN

BEFORE THE MINNESOTA

COMMISSIONER OF HEALTH

In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings.	* * * *	Findings and Conclusions

The above entitled matter came on for hearing before the Commissioner of Health on the 30th day of September, 1980, at 9:30 a.m. in Room 105, Minnesota Department of Health Building, after proper notice as required by Minn. Stat. § 15.0412 subd. 4 (1978) as amended by Laws 1980, Chap. 615 had been served upon all persons, associations and other interested groups registered with the department of health for that purpose.

After affording interested persons an opportunity to present written and oral data, statements and arguments, having heard all of the testimony, having considered all of the evidence adduced and upon the records, files and proceedings herein, and applicable standards and criteria, and having confirmed the need for the above captioned rules and amendments, the Commissioner hereby adopts as his own the Findings and Conclusions relating to Mineral Exploration* contained in the report submitted by the Hearing Examiner on November 19, 1980, with the comments and exceptions noted below. A copy of the report is attached hereto and made a part hereof.

1. Hearing Examiner's Report, Finding #20: The Hearing Examiner determined that there is no statutory authority to support the adoption of mineral exploration rules relating to location and construction of exploratory borings. The Commissioner takes exception with this finding because it disregards the argument made by the agency in its post-hearing submission regarding this very issue. The Examiner contends that only Section 5 of the Act (Laws, 1980, Chap. 535) authorizes adoption of rules and that no authority derives from Section 8. However Section 8 says that applicants for license

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1. Although the Hearing Examiner's Report also addresses amendments to rules relating to plastic well casing, those amendments will be discussed and acted upon in a separate submission.

as mineral explorers shall be examined on those portions of the well code having to do with location and construction as these relate to exploratory borings. The legislature could not have intended that explorers be examined on rules which have not been made applicable to them. If explorers are required to be examined on portions of the well code having to do with the location and construction of exploratory borings, the Commissioner has the authority to adopt these portions of the well code in the form of rules, applicable to borers. Potential applicants for license have a legally protected right to know in advance of the subjects on which they will be examined. Those subjects must be made public and notice of them must be given in the form of a rule adopted by the agency which will enforce them. Since the Legislature clearly wanted applicants to be examined on the provisions regarding location and construction, it is reasonable to infer that the Legislature intended that rules governing those subjects should be adopted. The Commissioner therefore specifically rejects the conclusion relating to lack of statutory authority which is contained in the second full paragraph on page 8 of the Report.

No action will be taken in this proceeding to reverse the decisions of the Office of Hearing Examiners relating to the proposed rules. Time is of the essence with regard to adoption of these rules. The law and rules governing the appeal or reversal of decisions of the Office of Hearing Examiners is unclear. As a result attempts to reverse those decisions would further delay the adoption of rules which were to take effect on January 1, 1981. Further, since the Legislature is currently in session, it can act to amend Laws of 1980 Chap. 535, to clarify the Commissioner's rulemaking authority which is at issue here.

2. Report, Finding #23: The portion of this finding which relates to statutory authority to adopt rules relating to location and construction is hereby rejected for the same reasons as those given in paragraph 1.

3. Report, Finding #31: The problem the Hearing Examiner discussed in this finding can be remedied by the addition of a sentence to 7 MCAR § 1.225 C.4.a.(3)(b) as follows: "All applicants

at any one examination session shall be given the same combination of tests." The addition of that sentence eliminates the possibility that applicants could be evaluated by different criteria. The addition serves to eliminate the source of the Hearing Examiner's objection. Since the addition does not impose any new responsibilities or limit any rights of those who are to be regulated by these rules, it should not be found to be a substantial change.

4. Report, Finding #33 (at p. 12): The Hearing Examiner's objection to the requirement that "certain conditions" be fulfilled before a revoked license can be reinstated can be eliminated by amending the provision in question as follows:

> "d. A license may be revoked and a responsible individual may be disqualified until certain conditions are fulfilled and/or for a specified period of time, as determined to be most appropriate by the Commisioner and as specified in the Commissioner's order of revocation."

The Hearing Examiner found that the revised rule as proposed did not give to the license sufficient notice as to the conditions required for reinstatement. The new language will eliminate this concern by requiring that any conditions which are to be imposed are to be stated in the same document in which the Commissioner's action is formally declared. Since the addition being proposed above does not impose any new responsibilities upon, nor interfere with any rights of persons who may be affected by these rules, it should not be found to constitute a substantial change.

5. Report Finding #35 and 37: The Commissioner rejects these findings of lack of statutory authority for the reasons given earlier in paragraph 1.

The portions of the proposed rule which were found by the Hearing Examiner not to be statutorily authorized have been deleted from the version of the rule being adopted. The deletion of those portions necessitates that definitions for terms which were used exclusively in the deleted portions must also be deleted. The terms to be deleted from MCAR §1.225 B. "Definitions," are the following:

B.6, cesspool; B.12.b, alluvium; B.12.c, glacial drift; B.12.d,

glacial outwash; B.12.e, hardpan; B.12.f, shale; B.12.j, gypsum; B.17, septic tank; B.19, sewage; B.21, static water level; B.22, subsurface disposal field; B.23, subterranean gas; B.24.b, near surface water; and B.24.c, surface water.

STATE OF MINNESOTA

Dated: January 29, 1981

George R. Pettersen M.D.

George R. Pettersen, M.D.
Commissioner of Health

RULES RELATING TO MINERAL EXPLORERS

STATEMENT OF NEED AND REASONABLENESS

The amendments to existing rules and the new rule relating to mineral exploratory borings and the examination and licensing of mineral explorers are being proposed by the Commissioner of Health pursuant to authority contained in Laws, 1980, Chap. 535, Sec. 8 (amending Minn. Stats. Chap. 156A (1978) relating to water well contractors).

Relevant Statutory Provisions:

The statutes define certain terms. These terms are used in the rules without repeating their definitions in the rules. The statute defines the terms "explorer" as a person who has the right to drill any exploratory boring (Laws 1980, Chap. 535, Sec. 3). The term "exploratory boring" means surface drilling done for the purpose of exploring or prospecting for a variety of metallic and non-metallic minerals, but specifically exempting drilling done for iron ore in the Biwabik formation (Laws 1980, Chap. 535, Sec. 4).

PROPOSED AMENDMENTS:

7MCAR §1.210 B.2. The term "Council" is being redefined to include the phrase "and Exploratory Borers," since this group will henceforth be represented on the advisory Council along with water well contractors. This addition to the definition reflects the statutory change which was made as follows:

"Subd. 1 There is hereby created the water well contractors and exploratory borers advisory council . . ." Laws 1980, Chap. 535, Sec. 7.

7MCAR §1.210 B. 6. The definition of the term "applicant" is being expanded to make the term applicable to persons applying for a water well contractor's license and to those applying for an explorer's license.

7MCAR §1.210 B. 9. The definition of the phrase "year of experience" is being revised to give it two distinct meanings. The existing part of the definition applies to water well contractors. The sentence which is being added to the definition qualifies the phrase "year of experience" specifically as it applies to mineral explorers. This added definition is consistent with the requirement for 5 wells per year, which is required of water well contractors in the existing rule. Since exploratory borings are not intended for the purpose of installing pumps, pitless adapters or well screens, there is not the same need to have a "limited" or "qualified" license for explorers as there is for water well contractors. Therefore no provision is made for a limited explorer's license.

7MCAR §1.210 B. 10. The definition of the term "licensee" is being broadened to include one who is licensed either as a water well contractor or mineral explorer, thus allowing a single term to be used in both the rules relating to water well contractors and construction and in those relating to mineral explorers.

PROPOSED NEW RULE

7MCAR §1.225. This is an entirely new rule which is being proposed for the purpose of implementing those provisions of Laws 1980, Chap. 535, which impose upon the Commissioner of Health certain duties and responsibilities to regulate mineral exploration.

7MCAR §1.225 A. This section of the rule incorporates by reference the definitions which are already contained in the well construction code. The new language acknowledges that certain terms may apply only to the construction of water wells and not to exploratory borings. The phrase "as appropriate" is used in this portion of the proposed rule to indicate that if a term which is used in Rule 225 is already defined in Rule 210 B. and C., that definition in

Rule 210 will apply to the term in question. Cross-reference is being made to Rule 210 in order to avoid duplication of language.

7MCAR §1.225 B. This section of the rule makes applicable to a person seeking an explorer's license some of the procedures which are in effect for persons applying for a water well contractor's license. Those portions of the existing rule which will apply to explorers include the section on qualifications; applications and fees; evaluation of applicants; examination; license denial,/issuance and renewal; and license suspension and revocation. With regard to licensing, the statute provides as follows:

> "Subd. 2. An explorer engaging in exploratory boring shall obtain a license to do so in accordance with the provisions of this chapter and the rules adopted therunder. The explorer may designate a responsible individual who supervises and oversees the making of exploratory borings. Before an individual supervises or oversees an exploratory boring, the individual shall take and pass an examination on those sections of the Minnesota Water Well Construction Code relating to construction, location, and abandonment of wells, which apply to exploratory borings. A professional engineer registered pursuant to Minnesota Statutes, Section 326.02 to 326.15, or a certified professional geologist shall not be required to take the examination specified in this section but shall be required to be licensed in accordance with this section to engage in exploratory boring." Laws 1980, Chap. 535 8.

The existing rules which have been in effect since the mid 1970's already address all of the areas regarding licensing which the new statute specifies. The statutory provision allowing designation of a representative is covered in 7MCAR §1.211 F. 5. and 6. The statutory provision regarding examination is covered in 7MCAR §1.211 D. The existing rules have given rise to a reasonably

satisfactory process for administering the licensing program. Since the new law imposes requirements for licensing which are very similar to those already in place for water well contractors (which were adopted pursuant to Minn. Stat. §156A.03, subd. 1; §156A.04; §156A.05 subd. 2(a), (b) and (c); §156A.07 (1978)), it is reasonable to impose the same licensing procedures on mineral explorers as are already in effect for water well contractors.

In the proposed rule, an exception is being made regarding the experience requirement for mineral explorers, i.e., the experience which would satisfy the qualifications being imposed need not have been gained in Minnesota. This exception is necessary in order to allow persons who may have gained most of their drilling experience elsewhere, to be able to qualify for licensure in Minnesota. Since little exploration has occurred to date in Minnesota, the effect of requiring that experience has been acquired in Minnesota would be to render many otherwise qualified applicants ineligible. Since such a result was clearly not intended in the legislation, it would be unfair to impose such a requirement for mineral explorers.

It is appropriate to impose some kind of experience requirement, to insure that one who is licensed to supervise mineral exploration activities has some familiarity with the technical procedures which are required for such activities. The Legislature knew that the water well contractors' rules contained an experience requirement. The mineral exploration statutory amendments refer to examination and licensing in much the same way as the existing law referred to these activities with regard to water well contractors. By using similar statutory language in the amendments relating to mineral explorers, it is clear that the Legislature intended that mineral explorers should also be similarly required to demonstrate some experience prior to being licensed. The type of examination which can be given pursuant to the statute can only be directed at specific provisions of the Code. Any layman could memorize the Code and pass the examination, yet an inexperienced person could not reasonably supervise the type of drilling and abandonment procedures involved in mineral exploration. In order to assure that the licensee is capable of applying in the field setting the standards being imposed in the rule, the department staff has determined that such a requirement is not only

reasonable, it is necessary, if the ultimate goal of protection of groundwater resources is to be served.

7MCAR §1.225 C. This section of the new rule merely restates the sense of the language of the penalty provision contained in Minn. Stats. §156A.08 (as amended by Laws 1980, Chap. 535, Sec. 9) which reads in pertinent part:

> "156A.08 (PENALTIES.) Any person who shall willfully violate any lawful regulation, rule or order of the board, or who shall engage in the business of drilling or making water wells without first having obtained a license as in secitons 156A.01 to 156A.08 required, or who shall engage in the business of exploratory boring without either being licensed in accordance with the provisions of this chapter, or being registered as a professional engineer or certified as a professional geologist, or who shall violate any provision of sections 156A.01 to 156A.08, shall be guilty of a misdemeanor. . ."

The statement in Rule 225 C. 2., that the explorer is responsible for all borings completed under his license serves to explain the meaning and scope of the phrase to "supervise or oversee exploratory boring," as that phrase is used in Laws 1980, Chap. 535, Sec. 5. It is reasonable to require that one who is licensed to carry on activities which have the potential for affecting human health and the environment, should be made to assume responsibility for all such activities carried out under his authority.

7MCAR §1.225 D. This section incorporates all the specific technical requirements relating to the construction, maintenance, and abandonment of exploratory borings. The provisions contained in this section are being imposed pursuant to specific statutory authority which will be addressed in detail below. Subpart D. 1. deals with location and construction. Laws 1980, Chap. 535 Sec. 1 states the legislative intent that exploratory borings should be regulated for

the purpose of protecting "the natural resource of underground water in an orderly, sanitary and reasonable manner." In order to provide protection for that natural resource, it is necessary to require that certain precautions be taken both in the construction of borings and in their abandonment. The proposed Rule §225D. 1 .a. does not allow the construction of borings within certain distances from sources of contamination. The proposed rule provides elsewhere, in part E, that a variance from these isolation distances may be sought under certain circumstances. A variance could be granted, allowing construction near a source of contamination, on condition that the type of construction used will prevent the entry into the boring of surface water which may be contaminated. Another provision (225 D. 1. c.) required that any boring made in cavernous limestone must be constructed in such a manner as to prevent cross-aquifer contamination. The casing and grouting procedures which are cross-referenced from 7MCAR §1.220 are specifically designed to provide such protection. Subpart 225 D. 1. d. prescribes yet another measure for assuring that groundwater quality is not degraded by requiring that a boring not be left open except when it is actually being worked on. Subpart 225 D. 2. a. requires that all abandonment be done in accordance with the well construction code provisions. This repeats the sense of the language of the law:

> "Permanent and temporary abandonment of exploratory borings shall be accomplished in the same manner as that prescribed for the abandonment of water wells pursuant to rules adopted in accordance with this chapter."

(Laws 1980, Chap. 535, Sec. 8, Subd. 7). Subpart 225 D. 2. b. requires that abandonment be undertaken upon completion of drilling activities. This requirement assures that the boring is not left in a state which might allow it to serve as a conduit for water contamination. Subpart 225 D. 2. c. describes the actual procedures to be used for temporary abandonment. The requirement that a boring be cased from bedrock is imposed so that there will be no cross-aquifer contamination during that time when the boring is being used. Such casing also serves to keep

the hole from caving in upon itself. The casing must be brought up at least one foot above ground surface and capped to prevent the entry of any surface water. For the same reason and also to protect the boring from a flood level wave action which might rise up to two feet or a flood level higher than any previously recorded flood level, a boring made in a flood plain must have the casing brought up two feet above that highest recorded flood level. Subpart 225 D. 2. c. (2) requires that a temporarily abandoned boring be marked with four steel posts and cross-references to 7 MCAR §217 C. 4. b. which describes the procedure to be used in installing such marking posts. Such marking posts are necessary to prevent the accidental breaking or cracking of the casing when it is unattended. Such damage could be caused by vehicles such as snowmobiles or farm equipment which could collide with the casing. The casing is to be protected in this manner to prevent the entry of surface water into the boring. The use of marking posts eliminates the need to fence off the area and also provides a ready means for locating the boring in the future.

Subpart 225 D. 2. c. (3) provides that a boring may be temporarily abandoned for a period not to exceed five years. This interval of time was chosen because it gives the explorer abundant time in which to make a variety of measurements, and especially those measurements which must be made in conjunction with other borings which may be located some distance away. It gives the explorer an opportunity to go back and reexamine an area. The five year deadline also gives the owner or occupant of the land a date certain after which the land can be restored to its pre-exploration use. While there is no five year limitation in the well code for temporary abandonment of water wells, it is reasonable here because the explorer does not have the same continuing interest in land which a landowner would have regarding a water well. In view of the fact that a boring can be left in a state of temporary abandonment for up to five years, the restrictions being imposed for maintaining the integrity of the casing and to prevent contamination of aquifers by entry of surface materials, are reasonable.

Subpart 225 D. 2. d. contains the provisions which apply when a boring is to be permanently abandoned. The cross-reference is made to those portions of the existing well code which govern permanent abandonment procedures. This subpart merely paraphrases the language of the statute which requires that borings be abandoned by those means already prescribed for water wells.

Subpart 225 D. 2. e. prescribes the means by which the department can be informed as to how a boring has been abandoned. The department needs to know the location of temporarily abandoned borings in order to be able to inspect them to assure that they are being properly maintained. Requiring that this information be provided by the explorer on the abandonment from imposes a minimum burden on the explorer while it provides to the department, in a relatively efficient manner, that information which it needs in order to be able to carry out an effective resource data aquisition, management and regulatory program.

7MCAR §1.225 E. This section provides that variances from the rules may be sought and provides that the procedure to be followed is that which is already available to water well contractors. This section is included here to make clear to explorers and any other interested persons, that certain provisions of the rules for construction and abandonment may be waived if the explorer can assure the agency that an alternate method or procedure will provide a degree of protection for the groundwater which is equivalent to that provided by the provision in question. The procedure contained in 7 MCAR §1.210 D. 3. a. and b. has been in use since the adoption of the well code and has proven useful and workable.

The primary purpose of the new rules and amendments to existing rules is to assure protection of groundwater by imposing conditions which will help to prevent groundwater contamination while still allowing explorers to engage in mineral exploration activities. The procedures prescribed in these proposed rules and amendments are imposed to assure that continued protection of the groundwater resource. In the final analysis, it is this department's position that the require-

ments as proposed are necessary, in order to fulfill the legislative purpose. The rules are reasonable in that they prescribe only those procedures and techniques necessary to achieve the intended purpose, while imposing only minimum restraints, conditions or burdens on the regulated industry.

RULES RELATING TO PLASTIC WELL CASING

STATEMENT OF NEED AND REASONABLENESS

The Department of Health rule (7MCAR§1.224) which prescribes procedures to be used when installing well casing which is made of plastic is being amended to reflect 1979 statutory changes authorizing the use of plastic casing statewide. Relevant portions of the law read as follows:

> "...Prior to January 1, 1981, the state commissioner of health shall adopt rules of statewide application pursuant to chapter 15 concerning the installation & use of plastic water well casing pipes & couplings in the state..."
> Minnesota Statue §156A.031 subd. 1 (1979 Supp.).

Heretofore the statute enumerated those counties in which the use of plastic casing was permitted. Minnesota Statute §156A.031 subd. 2 (1979 Supp.). Other changed are being made to the rule to clarify confusing language or to delete provisions which have been found to be unnecessary.

In the introductory sentence, the asterisk after the word "casing" and the footnote to which the asterisk refers are both being stricken. This change reflects the fact that henceforth installation of plastic casing is permitted statewide. It is fully intended that the rule revisions will be in effect by the January 31, 1981 deadline imposed in the statute cited above.

7MCAR §1.224 B.2. Certain materials commonly used in the installation process are being added to the list of items which must be determined by the commissioner of health as being safe for use in water wells. Some installers have argued that the term "components" in the existing rule, did not include "solvents, cements or primers." The added language clarifies this point, leaving no doubt as to whether or not such materials must be approved. Since some of these materials may contain trace amounts of chemicals which remain toxic long after an installation has been made and put into use, it is necessary, for the purpose of protecting the public health, to prohibit the use of those materials which have not been determined to be safe for water

supply use.

7MCAR §1.224 C. is being struck in its entirety because the purpose for requiring a 5" minimum casing was not being served. The requirement did not insure that potential melting problems caused by the pump overheating (which could be caused by a plugged discharge pipe) would be avoided by the use of an oversize casing. Since large casing is more costly, it is not reasonable to continue to require its use when no purpose is served.

Remaining lettered sections of the rule are being relabeled to reflect the fact that the language previously contained in section C is being stricken.

7MCAR §1.224 D. ~~B.~~ The requirement that a miter box be used to cut square ends on plastic pipe is being deleted because the use of a miter box has been shown to be unnecessary. Cuts which are reasonably square can be made without the use of a box. Eliminating the requirement makes its use discretionary with the installer.

7MCAR §1.224 D. ~~B.~~ 5 (1). This entire provision including Table G is being deleted. Field experience has shown that there is no need to wait for that much time before the solvent welded pieces can be inserted into the drill hole. It has been shown that satisfactory joint strength develops during the time prescribed in Table 5.

7MCAR §1.224 E. ~~F.~~ 1. The changes being made in this section will restrict the need to drill an oversize hole to those instances or conditions where the appropriate mode of construction absolutely requires the use of an oversize hole. Those two instances are specified in subparts a. and b. Grouting around the outside of the casing is particularly necessary in wells which are constructed through rock, in order to provide an impermeable barrier between the casing and the rock. In constructing such a well an oversize hole must be drilled in order to leave enough space between the casing and the rock wall to allow the insertion of a grout line and still provide sufficient space to surround the casing with grout

material which must be pumped under pressure from the bottom up. A 2" space around the outside casing is sufficiently wide to allow for the smooth and continuous upward flow of the grouting material, which is necessary to assure a satisfactory seal between the casing and the rock. Similar reasoning applies to subparts b. and c. requiring that grouting between the casing and the rock be done with certain prescribed materials. In part c. the cement grout material also protects the plastic casing from boulders that could move or cause the collapse, squeezing or crushing of the plastic casing.

7MCAR E. ~~F~~. 3. a. The cross-reference to a definitional section in Rule 210 is being replaced with a more informative cross-reference to that particular section which describes the procedure to be used. The language which is stricken in subpart a. is being deleted because it merely repeats language already found in Rule 220 C. and F. The language of subpart b. is being deleted because it had been included in part E. 1. b.

7MCAR 1.224 E. ~~F~~. 6. This new subsection prohibits the use of plastic casing in wells constructed in cavernous limestone formations becasue there is a high probability that such an installation could deform the casing. Because of the large spaces existing in "cavernous" formations, the driller must often seal off the formation with a layer of cement which may exceed 12" in thickness. During the process of hardening this greater quantity of cement will produce sufficient heat to cause softening and possible deformation of the casing. Such a deformation weakens the casing and could eventually result in a leak in the casing wall and the eventual contamination of the well. A new pump cannot be placed in a deformed well nor can routine maintenance or repair be made through it if the casing is deformed. The new provision does allow the use of plastic as inner casing because the space between an inner and outer casing is typically narrow enough that the volume of cement it requires should not be large enough to cause softening and deformation.

7MCAR §1.224 E. F. 7. The use of screws to hold solvent weld joints together is being prohibited for the following reasons: screw holes must be drilled through the coupling and casing, which results in a weakening of the casing; secondly, if the screws rust, they cause holes in the casing wall which can permit the entry of contaminating materials into the well; and thirdly, it is not necessary to use screws to keep couplings and casing together if the installer complies with the joint set times prescribed in Table 5. A joint that must be held together by screws indicates an improper fit of pipe-ends and improper solvent weld of the joints.

The changes being proposed with regard to the use of plastic casing are required in order to make the use of plastic casing safe for application statewide. Some changes which simplify the rule have been made. Elsewhere provisions which were found to have been redundant or unworkable have been stricken. All of these changes are reasonable, since they impose minimum additional burdens on water well contractors, while still serving the legislative purpose of protecting the groundwater. The 1979 law required that rules of statewide application be adopted. The rules discussed above are being proposed for that purpose and are, therefore, necessary.

Minnesota Department of Health

Date 8/28/80

Roger L. DeRoos, Ph. D., Director
Division of Environmental Health

STATEMENT OF COMPLIANCE WITH

MANUAL OF RULE MAKING PROCEDURES

I, Special Assistant Attorney General William G. Miller, do hereby declare that I have examined the proposed rules relating to Mineral Explorers and Exploratory Borings and all related documents and that, based on such examinations and my personal familiarity with the applicable procedures, the Manual of Rule Making Procedures has been followed.

Dated: February 19, 1981

WILLIAM G. MILLER
Special Assistant
Attorney General

SF-00006-01

STATE OF MINNESOTA

DEPARTMENT ATTORNEY GENERAL - Health

Office Memorandum

TO : Jerry Anderson
Special Assistant
Attorney General

DATE: February 24, 1981

FROM : William G. Miller
Special Assistant
Attorney General

PHONE: 341-7272

SUBJECT: In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings

I have enclosed a copy of the Minnesota Department of Health's affidavit of mailing the Notice of Submission of the above-referenced rules. Please add it to your file.

WGM:rlb

Enclosure

RECEIVED
FEB 26 19[illegible]
ATTORNEY GENERAL
ADMINISTRATIVE AGENCIES

STATE OF MINNESOTA)
)ss.
COUNTY OF HENNEPIN)

In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings.

AFFIDAVIT OF MAILING

Debbie Nelson, being first duly sworn, deposes and says:

That on the 20th day of February, 1981, at the City of Minneapolis, County of Hennepin, State of Minnesota, she served the attached Notice of Submission to the Attorney General by depositing in the United States mail at said City of Minneapolis, a true and correct copy thereof, properly enveloped, with postage prepaid, to all persons and associations at the addresses listed on the Hearing Examiner's register attached and made a part hereof as Exhibit A.

Debbie Nelson

Subscribed and sworn to before me this 20 day of February, 1981.

Louise K. Kaniuk

LOUISE K. KANIUK
NOTARY PUBLIC-MINNESOTA
HENNEPIN COUNTY
My Comm. Expires Feb. 22, 1986

minnesota department of health
717 s.e. delaware st. minneapolis 55440
(612) 296-5221

FEB 20 1981

To: All Persons Requesting Notification

Re: Adopted Mineral Exploration Rule Submitted to Attorney General for Final Review.

Pursuant to your request, made at the hearing of September 30, 1980 regarding the above-referenced rule (7 MCAR §1.225), you are hereby notified that the rule hearing record and the rule adopted by the Commissioner of Health were submitted today to the Attorney General for final approval. A copy of the adopted rule is attached.

Sincerely yours,

Pauline M. Bouchard, J.D.
Assistant to the Director
Division of Environmental Health

PMB:bjp

Attachment

Exh. A

William C. Ulland
Am Shield Company
740 East Superior Street
Duluth, Minnesota 55802

Anita Williams
Phillips Uranium
12751 County Road 5
Burnsville, Minnesota 55338

Susan Wallace
HIMCO
1325 South Colorado Boulevard
Denver, Colorado 80222

Stan Watowich
AMAX
P.O. Box C
Babbitt, Minnesota 55706

Robert J. Davidson
Davids Well Company
Route 3
Thief River Falls, Minnesota 56701

Morris T. Eng
Department of Natural Resources
Centennial Building
St. Paul, Minnesota 55101

Stanley K. Hamilton
AMAX Exploration, Inc.
P.O. Box 1019
Chesterfield, Missouri 63017

Thomas W. Bastien
Ernest K. Lehmanns & Associates
1409 Willow Street
Minneapolis, Minnesota 55403

Gary Macomber
4344 IDS Center
Minneapolis, Minnesota 55402

Jack Millen
Longyear Company
925 Delaware Street S.E.
Minneapolis, Minnesota 55414

Arvid Anderson
Dairy Farmers
Route 1
Grasston, Minnesota 55030

Donna Heximer
Rocky Mountain Energy
P.O. Box 288
Barnum, Minnesota 55707

Allen Fryberger
AFCO
17825 19th Avenue N.
Plymouth, Minnesota 55447

Jim Hershey
Jet Stream Plastics
Box 190
Siloam Springs, Arkansas 72761

John B. Gordon
1300 N.W. Bank Building
Minneapolis, Minnesota 55402

Susan Robertson
Legis. Comm. to Review Admin. Rules
Room 430
State Office Building
St. Paul, Minnesota 55155

John A. Yellich
Rocky Mountain Energy
4704 Harlow
Denver, Colorado 80212

Thomas J. Triplett
Ad Hoc Coalition on Uranium Mining
618 E. 22nd Street
Minneapolis, Minnesota 55404

Warren Pladsen
MN/DOT
Transportation Building
St. Paul, Minnesota 55155

George H. Keys
Keys Well Drilling
413 No. Lexington
St. Paul, Minnesota 55104

Loni Kemp
Ad Hoc Coalition on Uranium Mining
618 E. 22nd Street
Minneapolis, Minnesota 55404

Virgil Mikkelsen
MN Department of Transportation
Transportation Building
John Ireland Boulevard
St. Paul, Minnesota 55155

Carole Lannon
Physicians for Social Responsibility
4613 Cedar Avenue S.
Minneapolis, Minnesota 55407

R. H. Merkel
ANACONDA
555 17th Street
Denver, Colorado 80217

Paul G. Schmidt
Exxon Minerals Company
Box 676
Rhinelander, Wisconsin 54501

Ralph T. Keyes
MN Water Well Association
1631 Brooks Avenue W.
St. Paul, Minnesota 55113

Peter Ashbrook
MEQB
LL-50 Metor Square Building
St. Paul, Minnesota 55101

Raymond A. Haik
4344 IDS Center
Minneapolis, Minnesota 55402

Doug Franzen
Consulting Engineers Council
3848 IDS Center
Minneapolis, Minnesota 55402

Jennifer O'Neill
MN Public Radio
400 Sibley Street
St. Paul, Minnesota 55101

Tony Ruppert
M.D.H. W.W. Adv. Council
20420 County Road #50
Hamel, Minnesota 55340

Ted S. Waskosky
M.D.H. W.W. Adv. Council
Route 2
Elbow Lake, Minnesota 56531

Rex Singer
M.H.D. Advisory Council
1444 Englewood Avenue
St. Paul, Minnesota 55104

Harold Hietala
M.H.D. Advisory Council
Star Route Box 2226
Virginia, Minnesota 55792

STATE OF MINNESOTA

COUNTY OF HENNEPIN

BEFORE THE MINNESOTA

COMMISSIONER OF HEALTH

In the Matter of Proposed Amendments to Rules Relating to Water Well Construction and the Use of Plastic Casing

STATEMENT OF

CONSULTATION

This Agency has received notice of the fact that the Commissioner of Health proposes to amend the Minnesota Water Well Construction Code at a hearing to be held on September 30, 1980.

Members of the staff of the Division of Water Quality of this Agency have reviewed the proposal which was published at 5 S.R. 267 (1980) and are in agreement with the amendments being proposed.

DATE: SEP 2 9 1980

Louis Breimhurst for
Terry Hoffman
Executive Director

STATE OF MINNESOTA

COUNTY OF RAMSEY

BEFORE THE MINNESOTA

COMMISSIONER OF HEALTH

In the Matter of Proposed Amendments to Rules Relating to Water Well Construction, the Use of Plastic Casing, and Mineral Exploration

STATEMENT OF

CONSULTATION

The Minnesota Department of Natural Resources has received notice of the fact that the commissioner of health proposes to amend the Minnesota Water Well Construction Code at a hearing to be held on September 30, 1980.

Members of the staff of the Division of Waters and the Division of Minerals have reviewed draft amendments and attended meetings to discuss aspects of the proposed amendments. Comments on several drafts have been provided by these staff members both orally and in writing. The Department now agrees with most of the proposed rules and finds that many of the areas of special concern to it have been satisfactorily addressed. Some additional written comments are attached. Department staff will attend and may present additional comments at the hearing as well.

DATE: Sept. 29, 1980

By Steven P. Thorne, Deputy
Joseph N. Alexander
Commissioner

SPT:t
Attachment

ADMIN 1002 (Rev. 1/78)
SF-00006-01

STATE OF MINNESOTA

DEPARTMENT Natural Resources

Office Memorandum

TO : Roger DeRoos, Director
Environmental Health Division
Minnesota Department of Health

DATE: September 29, 1980

FROM : Elwood F. Rafn, Director
Division of Minerals
Minnesota Department of Natural Resources

PHONE: 296-4807

SUBJECT: Proposed Rule Changes to the Water-Well Construction Code to Include Explorers and Exploratory Boring.

We have noted that some of the suggestions given during our previous consultations have been incorporated into the draft of the proposed changes to the Water-Well Construction Code. The addition of MCAR § 1.225 pertaining exclusively to Explorers makes the code more workable. Our final review identified the need for the following improvements and corrections listed below.

1. Rule 7 MCAR § 1.210 should include a definition of Water Well Driller vs. Mineral Explorer in order to clarify their differences in the intent and scope of their work, and what is applicable.

2. How will the experience requirements for an Explorer be validated?

3. Terms "he" and "his" are used interchangably with "person" in 7 MCAR § 1.210B.9, § 1.225C, and under § 1.225D.2d.

4. The temporary abandonment requirements for exploratory holes on a floodplain seem to be inappropriate when a pipe must extend 2 feet above maximum flood stage. In the Minnesota River Valley this would require a 20-25 foot pipe extension above the landsurface in some places. In the event of a flood the pipe could easily be broken by floating debris. It would be more practical to authorize temporary abandonment by capping 2 feet above the landsurface for a shorter period of time or during seasons of the year when floods are unlikely to occur.

5. We feel the best way to deal with "as appropriate" in new rule 1.225, is to delete it. It adds nothing. What applies should be listed.

6. New rule 1.225 incorporates by reference the following parts of the water well construction code. It would clarify the new rule if these could be listed.

1.210 B. & C.
1.210 D.3 a + b.
1.211 A thru G.
1.217 C.1 a thru e.
1.217 c. 4. b.
1.218 C. 2. a. thru e.
1.220 A., C., and H.
All provisions regarding abandonment.

EFR:M

HLTH-81-004-RL

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE DEPARTMENT OF HEALTH

In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings, and Proposed Amendments to Rules Relating to Water Well Construction and the Use of Plastic Casing.

ORDER OF THE CHIEF HEARING EXAMINER

The above-entitled matter came on for review by the Chief Hearing Examiner pursuant to the provisions of Minn. Laws 1980, Ch. 615, § 6, subd. 4d (to be codified as Minn. Stat. § 15.0412, subd. 4d) which provides in part:

> If the [hearing examiner's] report contains a finding that the proposed rule is substantially different from that which was proposed at the public hearing, or that the agency has not met the requirements of section 15.0412, subdivisions 4 through 4f, it shall be submitted to the chief hearing examiner for approval. If the chief hearing examiner approves the finding of the hearing examiner, he shall advise the agency of actions which will correct the defects, and the agency shall not adopt the rule until the chief hearing examiner determines that the defects have been corrected. If the chief hearing examiner determines that the need for and reasonableness of the rule has not been established pursuant to subdivision 4, clause (c), and if the agency does not elect to follow the suggested actions of the hearing examiner to correct that defect, then the agency shall submit the proposed rule to the legislative commission to review administrative rules for the commission's advice and comment. The agency shall not proceed to adopt the rule until it has received and considered the advice of the commission; provided, that the agency is not required to delay adoption longer than 30 days after the commission's receipt of the agency's submission.

Based upon a review of the record in this proceeding, the Chief Hearing Examiner hereby approves the Report of the Hearing Examiner in all respects and specifically as to any finding of substantial change or of failure to comply with Minn. Laws 1980, Ch. 615, § 6 (to be codified as Minn. Stat. § 15.0412, subd. 4-4f), or of failure to establish need for and reasonableness of the proposed rule.

In order to correct the defects enumerated by the Hearing Examiner, the agency shall either take the action recommended by the Hearing Examiner or reconvene the rule hearing if appropriate. If the agency chooses to reconvene the rule hearing, it shall do so as if it is initiating a new rule hearing, complying with all substantive and procedural requirements imposed on the agency by law or rule.

If the agency chooses to take the action recommended by the Hearing Examiner, it shall, prior to submitting the rules to the Attorney General for review, submit to the Chief Hearing Exmainer a copy of the rules as initially published in the State Register, a copy of the rules as proposed for final adoption in the form required by the State Register for final publication, and a copy of the agency's Findings of Fact and Order Adopting Rules. The Chief Hearing Examiner will then make a determination as to whether the defect in

regard to substantial change and the requirements of Minn. Laws 1980, Ch. 615, § 6 (to be codified as Minn. Stat. § 15.0412, subd. 4-4f) have been corrected.

Should the agency make changes in the rules other than those recommended by the Hearing Examiner, it shall also, prior to submitting the rule to the Attorney General, submit the complete record to the Chief Hearing Examiner for a review in regard to substantial changes.

Dated this 18th day of November, 1980.

DUANE R. HARVES
Chief Hearing Examiner

ADMIN 1000 (Rev. 1/78)

STATE OF MINNESOTA

DEPARTMENT ADMINISTRATIVE HEARINGS

Office Memorandum

TO : WILLIAM G. MILLER
Special Assistant Attorney General

DATE: 2/13/81

FROM : DUANE R. HARVES
Chief Hearing Examiner

PHONE: 6-8100

SUBJECT: IN THE MATTER OF PROPOSED NEW RULES RELATING TO MINERAL EXPLORERS AND EXPLORATORY BORINGS.
HLTH-81-004-RL

Enclosed is the original and one copy of the Order of the Chief Hearing Examiner in the above-entitled matter.

In addition to the items discussed in my Order, we noted that you have cited Minn. Stat. § 156A.031 (1980) as authority in the Order for Adoption. Please check this cite. We believe it should be Minn. Stat. §§ 156A.03 and 156A.071, for purposes of this submission.

I am returning the original of the Commissioner's Findings and Conclusions.

DRH:sh
Encs.
cc: Pauline Bouchard

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE DEPARTMENT OF HEALTH

In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings.

ORDER OF THE CHIEF HEARING EXAMINER

On November 17, 1980, the report of Hearing Examiner Richard C. Luis in the above-referenced matter was completed and submitted to the Chief Hearing Examiner for approval pursuant to the provisions of Minn. Stat. § 15.0412, subd. 4d (1980). The Chief Hearing Examiner approved the report and issued an order dated November 18, 1980. As Examiner Luis was away from the state, his report, having been found to be unsigned, was signed by his supervisor, George A. Beck, on November 19, 1980.

This matter was submitted to the Chief Hearing Examiner for review pursuant to the provisions of Minn. Stat. § 15.0412, subd. 4d (1980) for a determination that the defects found by the Hearing Examiner have been corrected and that any changes made in the rules as proposed for final adoption are not substantially different from the rules as last preposed by the agency prior to the close of the record (see Rules 9 MCAR §§ 2.110 and 2.111).

In this procedure, it must be remembered that the Hearing Examiner's Report was based on the rules as last proposed by the agency and that the Chief Hearing Examiner's authority is limited as discussed in the preceeding paragraph. However, other items which have been found on this review will be discussed so that in the event the agency changes the rules accordingly, it will have the benefit of the ruling of the Chief Hearing Examiner and will not thereafter have to resubmit the rules for review, the comments of the agency in its Findings and Conclusions relating to the necessity for expeditious handling having been duly considered.

1. At 7 MCAR § 1.210 B.9., new language in the final sentence ("for a water well contractor") which had been originally proposed but subsequently withdrawn was reinserted upon adoption. Persons affected by the new rules were on notice that this language may have been adopted from the time the proposed new rules were originally published in the State Register. The reinserted language is clarifying only, serves the purpose of making the definitions section of the Rules internally consistent, and is not a substantial change. p.1 ✓

2. 7 MCAR § 1.225 A.1., as proposed in the Department's posthearing revision and as approved by the Hearing Examiner, contains the clause "and the proper isolation of exploratory borings from possible sources of contamination,". This clause has been deleted from the rule, as adopted, and the grammar and punctuation of the sentence in which it appeared have been adjusted accordingly. The language, although found by the Hearing Examiner to be necessary and reasonable, imposed no new substantive requirements, and its non-inclusion does not result in a Rule substantially different from that which was proposed. p.2 ✓

3. The adopted rules eliminate from 7 MCAR § 1.225 B. the definitions of 18 different terms, which definitions were proposed for the first time in the Department's posthearing revision. The necessity to eliminate these subsections (which define terms used exclusively in portions of the proposed rules which were found by the Hearing Examiner to exceed statutory authority) was not discussed in the Hearing Examiner's Report. However, their elimination is necessary and reasonable since the absence of the defined terms in the balance of the Rule's sections would result in unnecessary, surplus language if the definitions were retained. Elimination of such surplusage is thus an editorial, rather than a substantial change.

see p. 4 & 5 Revision

4. At 7 MCAR § 1.225 B., definitions of the terms "sandstone", "dolomite", "seepage pit" and "sewer" were eliminated in addition to the 14 eliminations from this Section enumerated in the Commissioner's final submission. These deletions are necessary and reasonable and not a substantial change for the same reasons discussed in the preceding paragraph. Definition of the term "ground water" should be placed in proper alphabetical order.

see p. 5 & Revision

5. The Commissioner's submission included a set of "Adopted Rules" and a document labelled "Adopted Rules - (version to be published in State Register)". 7 MCAR § 1.225 C.1., as adopted, and as approved by the Hearing Examiner, is different from the 7 MCAR § 1.225 C.1. presented in the "version to be published in State Register". The latter version repeats the language of C.1. as originally published. No finding of need and reasonableness was made by the Hearing Examiner on the originally published language because that language had been replaced by a posthearing revision which added the words "or is employed by one who possesses". The Chief Hearing Examiner presumes that this inconsistency is a typographical error, but if the intention is to make effective the version originally published in the State Register, the Chief Hearing Examiner finds that the surviving language is a substantial change because it results in a rule fundamentally different from that which was finally proposed and approved. The difference is fundamental because the language as originally published implies that only persons licensed as explorers are allowed to engage in the actual physical construction of exploratory borings. In reality, drilling operations are performed, for the most part, by individuals or businesses retained by the explorer. This reality was reflected in the language of the posthearing revision approved by the Hearing Examiner, and that language must be retained. The word "drill" in the first line has also been deleted from the "State Register version".

inserted p. 7

reinserted p. 7

6. The defect in 7 MCAR § 1.225 C.4.a.(3)(b), now numbered C.4.a.(2)(b), as detailed at Finding 31 of the Hearing Examiner's Report, which finding was approved by the Chief Hearing Examiner, has not been corrected. The Rule as proposed was defective because it failed to guarantee that each candidate for designation as a "responsible individual" would receive the same evaluation as any other candidate in the Class. The Rule as adopted retains "an evaluation interview by the Council" as a separate qualification hurdle that any applicant must clear. No indication of the relative weight of the evaluation interview as opposed to the rest of the Examination is apparent from a reading of the Rule. The Rule must provide that the weight given the evaluation interview and the rest of the examination must be the same for all members of

see revision p. 8

the Class (all who take the examination at any one time) and the Rule, as adopted, lacks that assurance. The adopted Rule also fails to standardize the evaluation interview with respect to what questions can be asked of the candidates. If the interview is retained, it must be clear from the Rule that the questions given to all candidates in any one Class during the course of the interview will be identical. The quickest way to cure this defect at this time is to delete the last seven words of the sentence. Any other change will have to be resubmitted to the Chief Hearing Examiner for review. deleted p.8

7. Subpart C.4.b. of 7 MCAR § 1.225, as proposed, was found to lack statutory authority. The Rule, as adopted, deletes the reference to an experience requirement for candidates for designation as responsible individuals and substitutes the language "all the necessary information.". If the subpart's intent is that the Commissioner shall not act until an applicant has completed all the steps specified in subpart C.4.a., then the change is clarifying only and not a substantial change. The language actually adopted, however, may be interpreted as imposing additional, unspecified requirements on applicants beyond those detailed in the preceding subpart C.4.a. Such a result violates substantive provisions of law because it is vague and fails to make specific the requirements for qualification. This defect can be corrected by either deletion of the entire subpart or rewording of it to make clear that no steps beyond those specifically noted in the Rule are necessary, so that the rule might read "...until he has received all the information required by this rule". reworded p.8

8. 7 MCAR § 1.225 C.5.d., as adopted, provides for written notice to any disciplined explorers or responsible individuals of the conditions and length of their discipline. The violation of due process of law found by the Hearing Examiner and Chief Hearing Examiner in the Rule, as proposed, has been corrected. However, the Hearing Examiner and Chief Hearing Examiner also found the Rule, as proposed, to be vague in that it vested overly-broad discretion in the Commissioner regarding the setting of conditions to be fulfilled prior to relicensing or requalification. Retention of the language "until certain conditions are fulfilled" in the adopted rule maintains the vagueness defect. Short of deleting the section, the defect can be corrected by specifying the nature of the conditions which can be applied. One such limitation would be to amend the phrase to read as follows: "...certain conditions specifically related to the violations giving rise to the revocation...". Addition of the above language or other essentially similar language would not be a substantial change. (The word "specified" is misspelled.) so amended p.9

9. The documents labelled as "Adopted Rules" and "Adopted Rules - (Version to be published in the State Register)" are inconsistent in the first sentence of 7 MCAR § 1.225 D.1. The last three words of the sentence should read, "and this Rule." in the State Register's version. Additionally, the words "in the manner prescribed in these Rules." are added to the end of the first sentence of 7 MCAR § 1.225 D.3.a. in the State Register's version. This language did not appear in the posthearing revision or in the "Adopted Rules". It did, however, appear in the proposed Rules originally published in the State Register. The clause is clarifying only and its inclusion would not result in a substantial change. If the intent is to include the language, it must actually be adopted. so now reads p.10

NOW, THEREFORE, pursuant to Minn. Stat. § 15.0412, subds. 4d and 4e (1980), IT IS HEREBY ORDERED that the Commissioner of Health shall not adopt these Rules until the defects as discussed above have been corrected. If the Commissioner amends the rules as discussed and suggested herein, he need not return the rules to the Chief Hearing Examiner. Any changes not discussed herein must be reviewed by the Chief Hearing Examiner pursuant to the provisions of Minn. Stat. § 15.0412, subds. 4d and 4e.

Dated this 13th day of February, 1981.

DUANE R. HARVES
Chief Hearing Examiner

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE DEPARTMENT OF HEALTH

In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings, and Proposed Amendments to Rules Relating to Water Well Construction and the Use of Plastic Casing.

REPORT OF THE HEARING EXAMINER

Pursuant to an Order for and Notice of Hearing issued by George R. Pettersen, Commissioner, Department of Health, on August 8, 1980, the above-entitled matter came on for hearing before Richard C. Luis, duly appointed as Hearing Examiner by the Chief Hearing Examiner, at 9:30 a.m. on September 30, 1980, in the Department of Health Building, Room 105, 717 Delaware Street S. E., Minneapolis, Minnesota.

This Report is part of a rulemaking process held pursuant to Minn. Stat. Ch. 15, to determine whether the proposed rules relating to mineral explorers and exploratory borings and amendments to existing rules relating to water well construction and the use of plastic casing should be adopted by the Department of Health.

William G. Miller, Special Assistant Attorney General, appeared as counsel for the Department of Health. Members of the agency panel included: Pauline Bouchard, Assistant to the Director of the Division of Environmental Health, Department of Health; Edwin H. Ross, Supervisor, Groundwater Quality Control Unit of the Department of Health; and Ron Thompson, Hydrologist, Groundwater Quality Control Unit of the Department of Health.

Thirty-five persons signed the hearing register. Twelve members of the public spoke at the hearing. The Department submitted 12 exhibits. The public submitted nine exhibits. Written comments were received by the Hearing Examiner subsequent to the hearing and prior to the close of the record which remained open through October 20, 1980 by order of the Hearing Examiner. Those comments are part of the record submitted to the Commissioner along with this Report.

In its final submission to the Hearing Examiner on October 20, 1980, the Department of Health included a "Posthearing Revision" accompanied by an "Explanation of Posthearing Revision" regarding the proposed new rules relating to mineral explorers and exploratory borings. In order to alert all interested parties of the Department of Health's present intentions, the Hearing Examiner has appended those documents to this Report.

Pursuant to the provisions of Minn. Laws 1980, Ch. 615, § 6, subd. 4d, this Report has been submitted to the Chief Hearing Examiner for his approval. If the Chief Hearing Examiner approves the findings of this Report, he will advise the Commissioner of actions which will correct the defects and the Commissioner may not adopt the rule until the Chief Hearing Examiner determines that the defects have been corrected. However, in the cases where the Chief Hearing Examiner identifies defects which relate to the issues of need or reasonableness, the Commissioner may either adopt the Hearing Examiner's recommendations

tive Commission to Review Administrative Rules for the Commission's advice and comment. Provisions relating to this submission to the Commission may be found in Minn. Laws 1980, Ch. 615, § 6, subd. 4d.

The Commissioner must wait at least five working days before taking any final action on the rules; during that period, this Report must be made available to all interested persons upon request.

If the Commissioner elects to adopt the recommendations of the Hearing Examiner and makes no other changes and the Chief Hearing Examiner determines that the defects have been corrected, then the Commissioner shall submit the rule to the Attorney General for review of form and legality. If the Commissioner makes changes in the rule other than those recommended by the Hearing Examiner, then he shall submit the rule, with the complete record, to the Chief Hearing Examiner for a review of the changes before adopting it and submitting it to the Attorney General. Procedures relating to this subsequent review by the Chief Hearing Examiner are set forth in Minn. Laws 1980, Ch. 615, § 6, subd. 4e.

When the Commissioner submits the rule to the Attorney General, he shall give notice on the day of submission to all persons who requested that they be informed of the submission to the Attorney General.

Based on all the records and proceedings herein, the Hearing Examiner makes the following:

FINDINGS OF FACT

Procedural Requirements

1. On July 31, 1980, the Department of Health (hereinafter "the Department") filed the following documents with the Chief Hearing Examiner:

(a) A copy of the proposed rule amendments and of the proposed rules.
(b) The Order for Hearing proposed to be issued.
(c) The Notice of Hearing proposed to be issued.
(d) A Statement of the number of persons expected to attend the hearing and estimated length of time required for the Agency's presentation.

2. On August 29, 1980, the Department mailed the Notice of Hearing to all persons and associations who had registered their names with the Secretary of State for the purpose of receiving such notice, to all persons and associations who had registered their names with the Department of Health, and to all members of the Minnesota Legislature.

3. On August 25, 1980, a Notice of Hearing and Copy of the Proposed Rule Amendments and Proposed Rules were published at 5 State Register 267-271.

4. On September 5, 1980, the Department filed the following documents with the Hearing Examiner:

(a) The Order for Hearing.
(b) Notice of Hearing as mailed.
(c) The affidavit of mailing of the Notice of Hearing.
(d) The Notice of Intent to Solicit Outside Opinions on Proposed Rules pursuant to Minn. Stat. § 15.0412, subd. 6, as published in the State Register on July 14, 1980.
(e) The letters of comment received following the Notice referred to in (d) above.
(f) The Statements of Need and Reasonableness.
(g) The present Water Well Construction Code.

(h) [illegible]

(i) The names of Department personnel who would represent the Agency at the hearing.

5. The documents listed above were available for inspection at the Office of Administrative Hearings from the date of filing to the date of the hearing.

6. On September 30, 1980, at the hearing in this matter, the Department introduced into evidence as exhibits the following documents:

(1) Order for Hearing.
(2) Notice of Hearing.
(3) A copy of Volume 5 of the State Register in which was published at 267-271 the Notice of Hearing and Proposed Rules and Rule Amendments.
(4) Affidavit of mailing of Notice of Hearing.
(4a) List of the Secretary of State containing names of persons and associations and their addresses.
(4b) List of the Department of Health containing names of interested persons and associations and their addresses.
(4c) List of names of persons and associations and their addresses to whom notice was sent.
(5) Amendments as proposed.
(5a) New rules as proposed.
(6) Statements of Need and Reasonableness for Proposed New Rules and Amendments to Rules.
(7) Statement of Consultation from the Commissioner of Natural Resources.
(8) Statement of Consultation from the Executive Director of the Minnesota Pollution Control Agency and an attached Memorandum from the Director of the Division of Minerals of the Department of Natural Resources.

7. The record remained open through October 20, 1980 for the receipt of written comments and statements. Twenty-five comments and a final submission from the Department of Health were submitted through the close of business on October 20, 1980.

Statutory Authority for Proposed Amendments to Rules Relating to Water Well Construction and the Use of Plastic Casing.

8. The Department cites Minn. Stat. § 156A.031 (1979 Supp.) as the statutory authority for adoption of the proposed rule amendments. Authority for the amendments is granted specifically in subdivision 1 of that section. Minn. Stat. § 156A.031 (1979 Supp.) requires that the rules relating to installation and use of plastic water well casing pipes and couplings be adopted by January 1, 1981, so that such pipes and couplings may be used on a state-wide basis.

The Hearing Examiner finds that the Department has statutory authority to adopt the proposed rule amendments and has properly documented that authority.

Discussion of the Proposed Amendments to Rules Relating to Water Well Construction and the Use of Plastic Casing.

9. 7 MCAR § 1.224 was adopted prior to January 31, 1978, pursuant to Minn. Laws 1977, Ch. 398, §§ 1 and 2, codified at Minn. Stat. § 156A.031. In 1979, the Minnesota Legislature amended Minn. Stat. § 156A.031 to allow the use of plastic casings in water wells in more Minnesota counties than were originally stated in the 1977 statute. The amendment also provided that the Commissioner of Health was to adopt rules prior to January 31, 1981 for the statewide use of plastic casings. The amendments offered in this proceeding are an effort by the Department to respond to that legislation.

10. The Department proposes to amend the introductory sentence of 7 MCAR § 1.224. The amendment would strike the asterisk after the word "casing" and

to footnote to which the material refers. This change would reflect the current [illegible] change. The Hearing Examiner finds this proposed amendment to be necessary and reasonable.

11. Subsection B.2. of 7 MCAR § 1.224 deals with materials used in water well plastic casing construction which must be approved by the Commissioner of Health before use. Certain materials commonly used in the plastic well casing installation process, which are not mentioned in the present rule, have been proposed for inclusion in the rule. Since the added language clarifies the Department's intent that solvents, cements and primers must be approved for use in water well construction, the Hearing Examiner finds the proposed amendment to be reasonable and necessary.

12. The Department proposes to delete subsection C. The five-inch minimum diameter for plastic well casing pipe was found not to serve the purpose of preventing potential melting problems. In order to avoid the unjustifiably high costs associated with large diameter casing, the Hearing Examiner finds the proposed amendment to be reasonable and necessary.

13. Because the deletion of subsection C. is proposed, the Department also proposes to re-letter the remaining subsections. The Hearing Examiner finds this proposal reasonable and necessary.

14. The Department proposes a change in subsection E.1. of the existing rule. The Department no longer considers the use of a miter box necessary for the square cut of pipe ends. The Hearing Examiner finds the proposed amendment necessary and reasonable.

15. In the amendments as proposed, the Department proposes to strike subsection E.5.i. of 7 MCAR § 1.224. This subsection details the required cure time for joints in plastic pipe before the pipe can be dropped into a drilled hole. The proposal as found at 5 State Register 270 does not, however, accurately reflect the language of 7 MCAR § 1.224 E.5.i. as published by the Office of the State Register, Department of Administration. The language in subsection E.5.i., as published by the Office of the State Register, states that the cure time is specified in Table 6. Table 6 immediately follows that statement in the Minnesota Code of Agency Rules. The proposed amendment states that the cure time is specified in Table 3. The table which is part of subsection E.5.i. in the State Register notice, the deletion of which is proposed, is entitled Table 3. Except for these differences, the language of 7 MCAR § 1.224 E.5.i., in its official version, and in the notice published at 5 State Register 270, are alike. Additionally, the Statement of Need and Reasonableness refers to Table 6 as Table G. The Hearing Examiner finds these mistakes to be technical, not substantial in nature, and finds that they do not prevent adoption of the proposed amendment. The Hearing Examiner, for the reasons stated by the Department in its Statement of Need and Reasonableness, finds the proposed deletion of 7 MCAR § 1.224 E.5.i. to be necessary and reasonable.

16. The Department proposes to amend subsection F.1. by defining exactly where an installer must drill an open hole which is four inches larger than nominal casing size. This is a recognition that it is not always necessary to have such a wide space around the outside casing to allow for the smooth and continuous flow of grouting material. The proposed amendment also states the type of grouting material to be used when the four-inch larger diameter hole

is required. The Hearing Examiner finds the proposed addition to subsection F.1. to be reasonable and necessary.

17. Amendments to subsections F.3.a.-c. are proposed. In subsection F.3.a., the cross-reference to a definitional section in Rule 210 is being replaced with a more informative cross-reference to the particular subsections which describe the procedure to be used. The Hearing Examiner finds this amendment to be necessary and reasonable.

The Department also proposes to delete certain other language in subsection F.3.a. The Department asserts that this is reasonable because the language merely repeats language which is already found in 7 MCAR §§ 1.220 C. and F. The Hearing Examiner, upon a comparison of 7 MCAR §§ 1.220 C. and F. and the proposed deleted language, does not find a mere repetition. In the absence of a sufficient presentation of fact showing the need for and reasonableness of the proposed deletion, the Hearing Examiner does not find this proposed deletion to be necessary and reasonable. In order to correct this defect, the Hearing Examiner suggests that the proposed deletion not be adopted and that the last four sentences of 7 MCAR § 1.224 F.3.a. be retained. Since the Hearing Examiner has concluded that the Department has not established the need for and reasonableness of the proposed deletion, this Report will be submitted to the Chief Hearing Examiner for his approval pursuant to Minn. Laws 1980, Ch. 615, § 6, subd. 4d (to be codified as Minn. Stat. § 15.0412, subd. 4d).

The deletion of subsection F.3.b. is proposed. Because this provision was incorporated into the amendment of subsection F.1., the Hearing Examiner finds the amendment reasonable and necessary.

In light of the deletion of 7 MCAR § 1.224 F.3.b., the re-lettering of the following subsection is proposed. The Hearing Examiner finds this to be necessary and reasonable.

18. The Department proposes to add a subpart 6 to the existing subsection F. This subpart would prevent the use of plastic water well casing as an outer casing in cavernous rock formations. The proposal allows the use of plastic pipe in such formations where it is used as an inner casing. The Department argues that the proposal is necessary because of the possible destruction of plastic casing during the grouting process when the pipe is used in such rock formations. The Hearing Examiner finds the proposed addition to be necessary and reasonable.

The proposed subpart may, however, be better stated to effectuate the Department's intent. The Hearing Examiner suggests that subpart 6. read as follows:

> Plastic well casing shall not be used as outside casing in wells cased and cement grouted through cavernous rock formations. However, in such formations, plastic casing may be used as an inner casing, pursuant to the requirements of 7 MCAR § 1.220 A.7., if surrounded by an outer casing.

19. The Department proposes to add a subpart 7. to the existing subsection F. It states that screws shall not be used to join solvent weld joints. The Hearing Examiner finds the proposal reasonable and necessary.

Statutory Authority for Proposed New Rules Relating to Mineral Explorers and Exploratory Borings.

20. The Department cites Minn. Laws 1980, Ch. 535, §§ 5 and 8 as authority for adoption of the proposed new rules. Authority for rules is granted specifically in those two sections. As related to mineral explorers and exploratory

borings, the Department originally proposed to amend 7 MCAR § 1.210 and to create a new rule, 7 MCAR § 1.225. After a posthearing revision (See Appendix), the Department now proposes only to add a new rule, 7 MCAR § 1.225. The purpose of both proposals was and is to adopt rules for the licensing of explorers, the examination and approval of individuals supervising exploratory borings, for the location and construction of exploratory borings, and the abandonment of exploratory borings.

In testimony taken at the hearing and written commentary received during the period of comment after the hearing, a number of representatives of the mining industry challenged the Department's statutory authority to adopt the proposed rules relating to location and construction of exploratory borings. Two of these representatives, Raymond A. Haik and Gary R. Macomber, attorneys with the firm of Popham, Haik, Schnobrich, Kaufman and Doty, Ltd., representing AMAX Exploration, Inc., submitted a detailed analysis of the history of Chapter 535, Laws of 1980. Chapter 535 is asserted as the statutory authority for the rules proposed here. In this study, it is argued that the Legislature purposely did not authorize the Department to regulate location and construction of borings. Support for this is grounded in a comparison of draft bills prepared before and leading up to adoption of Chapter 535. Messrs. Haik and Macomber would have the Hearing Examiner read the revisions of Staff Draft No. 1, as found in Staff Draft No. 2, in order to discover the legislative intent in the adoption of Chapter 535.

Responding to this argument, the Department of Health asserts that there is clear authorization for the regulation of location and construction of exploratory borings. In a memorandum from the Department, received on October 20, 1980, three reasons are given to support this assertion.

The Department argues that the section on legislative intent, Minn. Stat. § 156A.01 (1978), as amended by Minn. Laws 1980, Ch. 535, § 1, provides a basis for the proposed rules. That section specifies that protection of groundwater and prevention of diseases which might be caused by contamination of groundwater are goals to be achieved.

The Department's second reason in support of its position is based on language used in Minn. Laws 1980, Ch. 535, § 8. In subdivision 2 of that section, entitled "Licensing", the Department would have the Hearing Examiner focus his attention on the language stating that the person who will supervise exploratory borings "shall take and pass an examination on those sections of the Minnesota Water Well Construction Code relating to construction, location, and abandonment of wells, which apply to exploratory borings." The Department argues that the Legislature would not have required such a person to be so examined unless the Legislature was authorizing the regulation of those activities by the Department.

The Department also finds evidence of the statutory authority for its proposed rules in a letter by Representative Mary Murphy to the Hearing Examiner dated October 1, 1980. Representative Murphy states in her letter that it was the intent of the Legislature that the location and construction of exploratory borings should be regulated by the Department. The Department asserts that this letter is further evidence of the legislative intent behind Chapter 535, Laws of 1980, and that it is evidence of statutory authority on the basis of which the new rules are proposed.

The Hearing Examiner finds that the Department does not have the statutory authority to adopt rules relating to the location and construction of exploratory borings. The language of Minn. Laws 1980, Chapter 535, is not so ambiguous that opposite conclusions about the authority to regulate location and construction of borings can be drawn. The language of Chapter 535 is clear. Minn. Stat. § 645.16 (1978) provides:

> "When the words of a law in their application to an existing situation are clear and free from all ambiguity, the letter of the law shall not be disregarded under the pretext of pursuing the spirit."

Because the Hearing Examiner finds no ambiguity in the statutory language, he is not persuaded to reach his conclusion by an examination of the staff drafts which preceded the bill enacted as Chapter 535, Laws of 1980. Under the laws of statutory construction, extrinsic aids may be used to interpret ambiguities in statutes. See, Knopp v. Gutterman, 258 Minn. 33, 102 N.W.2d 689, 695 (1960) (extraneous aids to construction permissible only to resolve doubt). Only where statutory language is ambiguous should legislative history be used to aid in construction of the statute. See, Rice v. City of St. Paul, 208 Minn. 509, 295 N.W. 529 (1940). Since the Heaing Examiner has concluded that no ambiguity exists in the enabling legislation, the legislative history presented by Messrs. Haik and Macomber is not considered by him as evidence of an expressed legislative intent to grant no authority for rules relating to location and construction of exploratory borings.

Contrary to the Department's assertion, the Hearing Examiner does not find evidence of statutory authority to adopt the proposed rules on location and construction of borings in Minn. Laws 1980, Ch. 535, § 1, the section entitled "Legislative Intent." This section amended Minn. Stat. § 156A.01 (1978). The amended version continues the pre-existing legislative intent and purpose in Minn. Stat. §§ 156A.01-08, that is, "to reduce and minimize the waste of groundwater resources within the state." It is significant that Minn. Laws 1980, Chapter 535, amended Minn. Stat. § 156A.01 by adding that the stated purpose could also be effected by "the regulation of exploratory borings." This phrase, "the regulation of exploratory borings", is not a grant of authority to the Department to adopt any rules or regulations. Nor is the phrase, alone or in the context used in the statement of legislative intent, a description of the scope of authority to adopt rules as granted elsewhere in Chapter 535.

The Department finds specific authority to adopt rules in Minn. Laws 1980, Ch. 535, §§ 5 and 8. Under § 5, an amendment of Minn. Stat. § 156A.03 (1978), the Department is given authority to license explorers engaged in exploratory borings and to examine individuals who supervise or oversee exploratory boring. The Commissioner of Health's authority to do these things is "as provided in section 8" of Chapter 535. Thus, subdivision 2, within Ch. 535, § 8, grants authority to the Department to do that which § 5 requires. Chapter 535, § 5, in and of itself, grants no authority to the Department to regulate exploratory borings.

Chapter 535, § 8, is cited as authority to adopt the proposed rules. The Hearing Examiner, after careful study, finds in no other section of Chapter 535 a grant of authority to the Department to regulate mineral explorers and mineral exploration. Within subdivision 2 of § 8, the Hearing Examiner finds

a grant of authority to the Department to regulate the licensing of explorers and the examination of supervising, "responsible individuals". The Hearing Examiner also finds in subdivision 7 of § 8 a grant of authority to the Department to adopt rules for procedures used in permanent and temporary abandonment of exploratory borings. The Hearing Examiner does not find anywhere in Chapter 535 statutory authority for the adoption of rules relating to the location and construction of exploratory borings.

The Department further argues that language within subdivision 2 of § 8 supports a finding of authorization to regulate location and construction of exploratory borings. The Department points specifically to the statement providing that it shall examine responsible individuals who supervise or oversee exploratory borings on the sections of the Water Well Construction Code relating to construction, location and abandonment of wells, which apply to exploratory borings. The Department concluded that the Legislature would not have required such an examination unless it also intended the Department to regulate construction and location, as well as the abandonment, of exploratory borings.

The Hearing Examiner cannot agree with this conclusion. Elsewhere within Ch. 535, § 8, the Legislature specifically stated the activities to be regulated by Department rules. It is unreasonable to conclude that the Legislature intended to grant authority by implication for rules relating to location and construction of borings while every other grant of authority for rulemaking was express. Furthermore, if the language relied upon by the Department was a grant of authority to adopt rules, it would make superfluous subdivision 7 of § 8, which expressly authorizes the adoption of rules for abandonment procedures. See, State by Spannaus v. Lloyd A. Fry Roofing Co., 246 N.W.2d 696 (Minn. 1976), and Minnesota-Dakotas Retail Hardware Assoc. v. State, 284 N.W.2d 820 (Minn. 1979), which imply that in Minnesota, authority to adopt a specific rule may not be implied from a statute expressly giving an agency certain other rulemaking duties without explicitly stating the authority to adopt the specific rules in question. The Hearing Examiner therefore concludes that the Legislature did not intend the language at issue to be statutory authority for rules relating to the location and construction of exploratory borings. Instead, the language relied upon by the Department reflects the Legislature's intent that responsible individuals must be competent and well-trained in the drilling operations of exploratory boring. The statutory language does not grant authority to adopt rules, but provides guidelines for the examination given by the Commissioner, which must be taken and passed by individuals supervising exploratory borings.

The Hearing Examiner, finding Chapter 535 clear and specific in its grant of authority to the Department to adopt rules, is bound by the rules of statutory construction, as discussed above, to disregard Representative Murphy's letter regarding the legislative intent behind Chapter 535. The general rule is that the opinion of one legislator cannot be equated with or even considered when ascertaining legislative intent. 82 C.J.S. Statutes § 354, Iowa St. Educ. Assn.-Iowa Higher Educ. Assn. v. Public Employment Relations Board, 269 N.W.2d 446, 448 (Ia. 1978).

In connection with the finding of the Hearing Examiner that statutory authority to adopt rules relating to the location and construction of exploratory borings does not exist, he concludes that the only action that can be taken to

correct this defect is by a specific legislative grant of appropriate authority. It is impossible to cure the defect at this time.

21. The Department has also proposed rules relating to the qualifications of persons approved as responsible individuals who supervise exploratory borings. Included among these are rules pertaining to experience requirements for responsible individuals. The Department assumes it has the statutory authority to make rules regarding an experience requirement on the basis of its authority to examine responsible individuals. The Hearing Examiner finds no statutory authority for rules relating to experience requirements for responsible individuals. Minn. Laws 1980, Ch. 535, § 5, states that "as provided in section 8", the Commissioner of Health shall examine responsible individuals. Subdivision 2, within § 8 of Ch. 535, states the manner in which the responsible individual will be examined. (S)he will be examined by taking "an examination on those sections of the Minnesota Water Well Construction Code relating to construction, location and abandonment of wells, which apply to exploratory borings." The statute allows the Commissioner to administer such an examination. It does not grant authority to create and approve other qualifications for responsible individuals. The Hearing Examiner concludes that the only action which can be taken to correct this defect is by a specific legislative grant of authority to include "experience" as a factor (either independently or as part of an "examination") in the designation of a "responsible individual". There is no present cure for the defect.

22. The Hearing Examiner finds that the Department has properly documented its statutory authority for the adoption of proposed rules relating to the licensing of explorers, examination of individuals supervising or overseeing an exploratory boring, and the procedures for temporary and permanent abandonment of exploratory borings.

23. The Hearing Examiner finds that, for the reasons explained above, the Department has no statutory authority to adopt rules relating to the location and construction of exploratory borings and an experience requirement for responsible individuals.

24. Minn. Laws 1980, Ch. 615, § 6, subd. 4d (to be codified as Minn. Stat. § 15.0412, subd. 4d), requires submission of the Hearing Examiner's report to the Chief Hearing Examiner when the Hearing Examiner finds that the agency proposing the rules has not met the requirements of subdivisions 4 through 4f of that same statute. It was noted at Findings 20, 21, and 23 that the Department has proposed rules which exceed statutory authority. Minn. Laws 1980, Ch. 615, § 6, subd. 4c (to be codified as Minn. Stat. § 15.0412 subd. 4c), requires an agency seeking to adopt rules to fulfill any relevant, substantive or procedural requirements imposed on it by law or rule. One such requirement is found at § 15.0412, subd. 1 (1978), which allows amendment or adoption of rules "only pursuant to authority delegated by law". Since the Hearing Examiner has found that the Department is proposing to adopt rules going beyond "authority delegated by law", this Report will be submitted to the Chief Hearing Examiner for approval.

Discussion of the Proposed New Rules Relating to Mineral Explorers and Exploratory Borings

25. The Department originally proposed to amend 7 MCAR §§ 1.210 B.6., B.9., and B.10. These amendments were proposed to make definitions, as found

in the Water Well Construction Code, applicable to proposed rules relating to mineral explorers and exploratory borings. Since these definitions will not be made to apply to the revised proposed rules, the Department withdraws the proposed amendments to §§ 210 B.6., B.9. and B.10. The Hearing Examiner finds this to be reasonable and necessary.

26. The amendment of 7 MCAR § 1.210 B.2. is proposed. This amendment is not found in the posthearing revision of the proposed rules submitted by the Department. The Department's explanation of the posthearing revisions does not state whether the proposed amendment is being withdrawn. The proposed amendment is found, however, in the revised proposed rule 7 MCAR § 1.225 B.8. Yet, since this definition reflects the 1980 amendment to Minn. Stat. § 156A.06 (1978), a question arises as to whether the definition of 7 MCAR § 1.210 B.2. should also reflect the 1980 amendment. The Hearing Examiner finds that since the Department has not expressly withdrawn the proposed amendment to 7 MCAR § 1.210 B.2., it should be adopted because it is reasonable and necessary. The addition of the proposed new rule, § 1.225 B.8., which is identical to the amended § 1.210 B.2., is not a substantial change and is necessary and reasonable in order to effect the purpose of having separate rules for mineral explorers and exploratory boring.

adopted p. 1

27. The Department proposed a new rule, 7 MCAR § 1.225, to implement those provisions of Minn. Laws 1980, Chapter 535, which imposed upon the Department certain obligations to regulate mineral exploration. The introductory sentence of the originally proposed rule stated that the rule was to apply to explorers engaged in exploratory boring in accordance with the provisions of Chapter 535. This sentence is not included in the proposed posthearing revised rules. This is not a substantial change.

p 2

28. Subsection A. of § 1.225, dealing with the definition of terms, was originally proposed to read:

> Unless otherwise specified in this rule, the definitions given in 7 MCAR § 210 B. and C. shall apply to the terms used in this rule, as appropriate.

Responding to a great deal of public comment that incorporation by reference of definitions "as appropriate" was vague and confusing, the Department, in a posthearing revision, proposed a new 7 MCAR § 1.225 B., different from the § 1.225 B. originally published. The revised proposed § 1.225 B. lists the definitions which are to be applicable to rules relating to mineral exploration and exploratory borings.

Proposed revised rules § 1.225 B.10. and 11. substantially repeat the definitions of "exploratory boring" and "explorer" as found in Chapter 535. The Hearing Examiner finds the inclusion of these definitions to be crucial to the ability of persons affected by these rules to comprehend their meaning and effect. Therefore, the intent of Minn. Stat. § 15.0412, subd. 1 (which proscribes duplication of statutory language in rules in most cases) has not been violated.

Proposed revised rule § 1.225 B.16. is technically incorrect in that it states that a responsible individual is approved "for designation by the Commissioner in accordance with the terms of part C.4.d." There is no proposed part C.4.d. in the proposed revised rule. The Hearing Examiner finds that this error can be corrected with the substitution of "C.4.c." for "C.4.d.".

corrected p. 6

Because the proposed revised rule was a reasonable response to public comment and did not effectively change the definitional section, the Hearing Examiner finds that there has not been a substantial change. The Hearing Examiner finds the proposed revised rule, § 1.225 B., to be reasonable and necessary.

29. The Department originally proposed § 1.225 B. to provide the procedures for licensing of explorers. It substantially incorporated by reference 7 MCAR §§ 1.211 A.-G., which state the procedures and conditions for licensing of water well contractors. In the posthearing revision, the Department responded to much public comment and proposed the revised rule § 1.225 C. Sections 1.225 C.1.-3. state that an explorer is required to be licensed and what the explorer must do to be licensed. The Hearing Examiner finds that these proposed rules are reasonable and necessary. He is persuaded that the qualifications imposed in these subsections adequately distinguish an "explorer" from a water well contractor. He further finds that the posthearing revision is not a substantial change which would prevent adoption of the rules.

30. The Department proposes revised rule § 1.225 C.4. relating to the qualifications to be met before a person can qualify as a "responsible individual". The Hearing Examiner has found that the Department has no statutory authority to impose an experience requirement on these individuals. If the Chief Hearing Examiner agrees, proposed revised 7 MCAR §§ 1.225 C.4.a.(2) and C.4.b. cannot be adopted. In the event the Chief Hearing Examiner rejects that view, the need and reasonableness of these two subsections must be addressed.

see revision p. 8

31. Section 1.225 C.4.a.(3)(b) states that the examination to be taken by responsible individuals "shall consist of any combination of written, oral or practical work based on the substance of this rule and an evaluation interview by the Council." The Hearing Examiner finds this rule to be a violation of substantive provisions of law as proposed because it violates constitutional principles of equal protection of the law. Every person seeking approval as a responsible individual should be guaranteed the same examination as is given to all applicants taking the examination at the same time. It is within the discretion of the Commissioner or Council to determine the make-up of the examination given to all candidates at any one time and to change the examination at subsequent testing intervals, but one applicant may not be given a different combination from another applicant in the same Class. In order to remedy this defect, the rule should be revised to make it clear that all Applicants in any one examination session will receive the same combination of tests.

revised p. 8

32. Subject to approval by the Chief Hearing Examiner of the Finding of no statutory authority for the imposition of an experience requirement on responsible individuals, the Hearing Examiner finds all of § 1.225 C.4., except § 1.225 C.4.a.(3)(b), to be reasonable and necessary. The posthearing revision is not a substantial change because the Department is merely spelling out requirements incorporated by reference in the original proposed rule.

33. In the proposed revised rule, § 1.225 C.5., the Department proposes rules relating to revocation of licenses and disqualification of responsible individuals. Subsection C.5.d. states:

A license may be revoked and a responsible individual may be disqualified until certain conditions are fulfilled and/or for a specified period of time as determined to be most appropriate by the Commissioner. A revoked license shall be returned to the Commissioner.

Revocation and disqualification serve as penalties. The proposed subsection as written allows the Commissioner permissable discretion as to the period of time the penalties will be in effect. It is, however, also vague as to the conditions to be fulfilled before reinstatement of a license or requalification of responsible individuals. The Hearing Examiner finds proposed revised subpart § 1.225 C.5.d. to be a violation of substantive provisions of law in that it vests overly broad discretion in the Commissioner and deprives explorers and responsible individuals of due process of law. They are not given notice of the conditions for relicensing and requalification. In order to remedy this defect, it is suggested that proposed revised 7 MCAR § 1.225 C.5.d. delete all reference to fulfillment of "certain conditions" for relicensing or requalification. It is noted that these subjects are covered in proposed revised 7 MCAR § 1.225 C.5.e. With the above exception, the Hearing Examiner finds the proposed revised rule, 7 MCAR § 1.225 C.5., to be reasonable and necessary and not a substantial change from the originally proposed rules.

see new language p. 9

The Hearing Examiner notes that proposed subsection C.5.e. refers back to subsection C.4.b. for requalification procedures for responsible individuals. It is suggested that this reference contains a typographical error, and it should read "C.4.a.".

corrected p. 10

34. The Department originally proposed rule 7 MCAR § 1.225 C., relating to explorer responsibilities. All parts of this proposed rule were subsumed in the proposed revised rules. Therefore, the Hearing Examiner finds § 1.225 C., as originally proposed, to have been withdrawn.

see p. 7. C.1 is still part of rule

35. The Department originally proposed 7 MCAR § 1.225 D., relating to procedures for location, construction and abandonment of exploratory borings. In response to public dissatisfaction with provisions incorporated by reference from the Water Well Construction Code, the Department delineated the applicable portions of 7 MCAR §§ 1.217 C.1.a.-e. in the proposed revised rule § 1.225 D.1. Subject to approval by the Chief Hearing Examiner of a finding of no statutory authority for rules relating to location and construction of exploratory borings, the Hearing Examiner finds this proposed revised rule to be reasonable and necessary and not a substantial change from the rule originally proposed.

deleted see p. 12 of revision

36. The Department proposes rule § 1.225 D.2., relating to location of exploratory borings relative to gas and electric lines. This rule is subject to the earlier Finding that the Department lacks statutory authority to adopt rules on the location of exploratory borings. This proposed rule also appears, for the first time, in the proposed revised rules. There has been no notice of the intent to adopt such a rule. In addition, the proposal goes to a new subject matter of significant substantive effect. See, 9 MCAR § 2.111 B. Therefore, the Hearing Examiner finds § 1.225 D.2. to be a substantial change in the originally proposed rules. As such, it may not be adopted without initiation of a new rule hearing complying with all requirements of law or rule. Since the Hearing Examiner has found that the proposed rule is substantially different from that which was proposed at the public hearing, this Report is being submitted to the Chief Hearing Examiner for his approval in accordance

deleted p. 13 of revision

with Minn. Laws 1980, Ch. 615, § 6, subd. 4a (to be codified as Minn. Stat. § 15.0412, subd. 4d). If the Chief Hearing Examiner agrees with the Finding that the Department lacks statutory authority to adopt rules governing location of exploratory borings, this Finding is moot.

37. The Department originally proposed sections 1.225 D.1.b. and c. to regulate the construction of exploratory borings. After the hearing, revisions were made and revised 7 MCAR § 1.225 E. was proposed. The Hearing Examiner has found no statutory authority for adoption of rules relating to construction of exploratory borings. If this Finding is upheld by the Chief Hearing Examiner, proposed revised rule § 1.225 E. may not be adopted. If the Chief Hearing Examiner rejects the Finding, the Hearing Examiner finds §§ 1.225 E.7. and 8. to be reasonable and necessary.

deleted p.13 of revision

Proposed revised 7 MCAR §§ 1.225 E.1.-6. are proposed for the first time in the proposed hearing revision. For this reason, the Hearing Examiner finds the addition of the rules proposed in §§ 1.225 E.1.-6. to be a substantial change in the rules as originally proposed. This addition also goes to a new subject matter of significant substantive effect. Before proposed revised 7 MCAR §§ 1.225 E.1.-6. can be adopted, a new rulemaking proceeding complying with all requirements of law or rule must be initiated.

deleted p. 13,14 of revision

38. The Department originally proposed rules relating to abandonment in § 1.225 D.2. The posthearing proposed revised rules on abandonment of borings are found in proposed 7 MCAR § 1.225 F. The proposed revised rules are found by the Hearing Examiner to be reasonable and necessary, except as noted below.

p. 10, 11

Proposed revised rule, § 1.225 F.2. relates to temporary abandonment of borings. Rules relating to temporary abandonment were originally proposed in 7 MCAR § 1.225 D.2.c. Proposed revised rules §§ 1.225 F.2.a. and b. are new proposals. They did not appear in the original proposed rules. The Hearing Examiner finds, however, that they do not represent a substantial change in the rules as originally proposed. It is so found because these new proposals do not impose new substantive requirements on explorers. The Hearing Examiner finds §§ 1.225 F.2.a. and b. to be reasonable and necessary.

Proposed revised rule § 1.225 F.2.c. is the same as originally proposed rule § 1.225 D.2.c.(1), except for minor changes. The first sentence of § 1.225 F.2.c. was added in the posthearing revision. This sentence merely expands on the policy behind regulation of abandonment procedures and is, therefore, not a substantial change in the originally proposed rule. The proposed revised rule also changes the requirement of a water-tight cap on the boring to an overlapping cap. This is a recognition that, as pointed out by industry representatives, water-tight caps are unnecessary for temporary abandonment of borings in light of the other rules proposed. The Hearing Examiner does not find this change to be substantial.

p.11

Proposed revised rule § 1.225 F.2.d. is a change of the originally proposed rule, 7 MCAR § 1.225 D.2.c.(2). The original proposal was incorporated by reference in sections of the Water Well Construction Code. The proposed revised rule is merely a statement repeating the contents of the incorporated sections, reference to which has been deleted. The Hearing Examiner does not find this to be a substantial change.

p.11

Proposed revised rule § 1.225 F.2.e. limits the time period for temporary abandonment to two years. This is a change in the originally proposed rule,

p.11

§ 1.225 D.2.c.(3). The originally proposed rule set a limit of five years. The change was a response to public comments calling for a more limited allowable period for temporary abandonment. A basic qualitative difference between temporary and permanent abandonment is that temporary abandonment involves casing, or sealing the sides of, a boring, whereas permanent abandonment entails actual filling of the boring. The Hearing Examiner finds the revised proposal to be unreasonable and unnecessary. The proposal is unreasonable because an explorer may wish to resume operations in certain holes but not have the facility to resume them within a relatively short period. The Hearing Examiner finds the change unnecessary because it is his conclusion that the shortening of the time limit for temporary abandonment serves no demonstrable purpose. The Hearing Examiner notes that the Water Well Construction Code has no limitation on the temporary abandonment of water wells. If protection of groundwater is a common policy behind regulation of water well drilling and exploratory boring, the Hearing Examiner questions the reasonableness of different limitations on temporary abandonment of wells and borings.

However, a limitation on temporary abandonment time is within the reasonable discretion of the Department. The Hearing Examiner is also not persuaded by the argument advanced by many that the explorers and/or responsible individuals will ignore their temporarily-abandoned holes and lack the responsiblity to follow through with monitoring or permanent abandonment. The Hearing Examiner further finds that adoption of the originally proposed five-year limit is necessary and reasonable and recommends its adoption.

5 yr time limit adopted p. 11

Proposed revised rule 7 MCAR § 1.225 F.3. relates to permanent abandonment. Rules on permanent abandonment were originally proposed in § 1.225 D.2.d. The proposed revision includes changes which restate sections incorporated by reference in the originally proposed rules. The Hearing Examiner does not find these changes to be substantial.

The Department originally proposed rule 7 MCAR § 1.225 D.2.e., relating to abandonment reports. The proposed revised 7 MCAR § 1.225 F.4. changes the originally proposed rule on reports. It rewords the original proposal slightly and adds the requirement that within 30 days of temporary or permanent abandonment, a report must be filed. This change does not significantly affect the substance of the originally proposed rule and is, therefore, not a substantial change. The Hearing Examiner does suggest an editorial correction. The reference to Minn. Stat. § 156A.017 is incorrect. Such a section does not exist. A reference to § 156A.071 would be correct.

corrected p. 14

39. The Department originally proposed 7 MCAR § 1.225 E., relating to requests for modification of the proposed rules. This proposed rule was subsumed under proposed revised rules § 1.225 A.2. The proposed revision changes the original proposal by restating sections of the Water Well Construction Code incorporated by reference in the originally proposed rules. The Hearing Examiner does not find these changes to be substantial and finds proposed revised rule § 1.225 A.2. to be reasonable and necessary.

40. The Department proposes for the first time, in its proposed revised rules, 7 MCAR § 1.225 A.1. relating to the policies behind the rules proposed. The Hearing Examiner finds this rule to be necessary and reasonable and not a substantial change because no new substantive requirements are imposed.

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CONCLUSIONS

1. That due, timely and legally adequate notice of the hearing in this matter was properly served and published by the Department.

2. That the Department has met the procedural requirements of Minn. Laws 1980, Ch. 615, § 6, subds. 4-4f (to be codified as Minn. Stat. §§ 15.0412, subds. 4-4f), and all other procedural requirements of law or rule; the procedural irregularity noted at Finding 15 is technical in nature, and no corrective action is needed in the absence of any evidence of prejudice to interested parties.

3. That the Department has demonstrated its statutory authority to adopt the proposed rules within the meaning of Minn. Laws 1980, Ch. 615, § 6, subd. 4c (to be codified as Minn. Stat. § 15.0412, subd. 4c), and Minn. Stat. § 15.0412, subd. 1 (1978), and has complied with all other substantive requirements of law or rule, except as noted at Findings 20, 21, 23, 31 and 33 and as discussed throughout the remainder of this Report.

4. That the Department has demonstrated the need for and reasonableness of the proposed rules by an affirmative presentation of facts in the record within the meaning of Minn. Laws 1980, Ch. 615, § 6, subd. 4c (to be codified as Minn. Stat. § 15.0412, subd. 4c), except as noted at Findings 17 and 38.

5. That the additions to the proposed rules which were proposed after publication of the rules in the State Register are not substantially different from the rules as published in the State Register within the meaning of Minn. Laws 1980, Ch. 615, § 6, subd. 4d (to be codified as Minn. Stat. § 15.0412, subd. 4d), except as noted at Findings 36 and 37.

6. That the Hearing Examiner has suggested action to correct the defects mentioned in Conclusions 3, 4 and 5, as noted at Findings 17, 20, 21, 23, 31, 33, 36, 37, and 38.

7. That due to Conclusions 3, 4, 5 and 7, this Report has been submitted to the Chief Hearing Examiner for his approval pursuant to Minn. Laws 1980, Ch. 615, § 6, subd. 4d (to be codified as Minn. Stat. § 15.0412, subd. 4d).

8. That any Findings which might properly be termed Conclusions, and any Conclusions which might properly be termed Findings, are hereby adopted as such.

RECOMMENDATION

IT IS HEREBY RECOMMENDED that the proposed rule amendments and proposed new rules be adopted consistent with the Findings and Conclusions made above.

Dated this 19th day of November, 1980.

Richard C. Luis

RICHARD C. LUIS
Hearing Examiner

HLTH-81-004-RL

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE DEPARTMENT OF HEALTH

In the Matter of Proposed New Rules Relating to Mineral Explorers and Exploratory Borings, and Proposed Amendments to Rules Relating to Water Well Construction and the Use of Plastic Casing.

ORDER OF THE CHIEF HEARING EXAMINER

The above-entitled matter came on for review by the Chief Hearing Examiner pursuant to the provisions of Minn. Laws 1980, Ch. 615, § 6, subd. 4d (to be codified as Minn. Stat. § 15.0412, subd. 4d) which provides in part:

> If the [hearing examiner's] report contains a finding that the proposed rule is substantially different from that which was proposed at the public hearing, or that the agency has not met the requirements of section 15.0412, subdivisions 4 through 4f, it shall be submitted to the chief hearing examiner for approval. If the chief hearing examiner approves the finding of the hearing examiner, he shall advise the agency of actions which will correct the defects, and the agency shall not adopt the rule until the chief hearing examiner determines that the defects have been corrected. If the chief hearing examiner determines that the need for and reasonableness of the rule has not been established pursuant to subdivision 4, clause (c), and if the agency does not elect to follow the suggested actions of the hearing examiner to correct that defect, then the agency shall submit the proposed rule to the legislative commission to review administrative rules for the commission's advice and comment. The agency shall not proceed to adopt the rule until it has received and considered the advice of the commission; provided, that the agency is not required to delay adoption longer than 30 days after the commission's receipt of the agency's submission.

Based upon a review of the record in this proceeding, the Chief Hearing Examiner hereby approves the Report of the Hearing Examiner in all respects and specifically as to any finding of substantial change or of failure to comply with Minn. Laws 1980, Ch. 615, § 6 (to be codified as Minn. Stat. § 15.0412, subd. 4-4f), or of failure to establish need for and reasonableness of the proposed rule.

In order to correct the defects enumerated by the Hearing Examiner, the agency shall either take the action recommended by the Hearing Examiner or reconvene the rule hearing if appropriate. If the agency chooses to reconvene the rule hearing, it shall do so as if it is initiating a new rule hearing, complying with all substantive and procedural requirements imposed on the agency by law or rule.

If the agency chooses to take the action recommended by the Hearing Examiner, it shall, prior to submitting the rules to the Attorney General for review, submit to the Chief Hearing Exmainer a copy of the rules as initially published in the State Register, a copy of the rules as proposed for final adoption in the form required by the State Register for final publication, and a copy of the agency's Findings of Fact and Order Adopting Rules. The Chief Hearing Examiner will then make a determination as to whether the defect in

regard to substantial change and the requirements of Minn. Laws 1980, Ch. 615, § 6 (to be codified as Minn. Stat. § 15.0412, subd. 4-4f) have been corrected.

Should the agency make changes in the rules other than those recommended by the Hearing Examiner, it shall also, prior to submitting the rule to the Attorney General, submit the complete record to the Chief Hearing Examiner for a review in regard to substantial changes.

Dated this 18th day of November, 1980.

DUANE R. HARVES
Chief Hearing Examiner

7MCAR § 1.225 Rule Relating to Explorers and Exploratory Borings.

A. Policies.

1. This rule shall apply to all exploratory borings constructed in the State of Minnesota except those specifically exempted by the Minn. Stat. § 156A.02, subd. 5. Those aspects covered are licensing of explorers and the examination of responsible individuals, the proper abandonment of exploratory borings and the proper isolation of exploratory borings from possible sources of contamination, to protect the quality of groundwater aquifers. The explorer shall be responsible for the construction and abandonment of all exploratory borings completed under his license.

2. Modification by the Commissioner.

a. When the strict application of any provision of this rule presents practical difficulties or unusual hardships, the Commissioner, in a specific instance, may modify the application of such provision consistent with the general purpose of this rule and the Act and upon such conditions as are necessary, in the opinion of the Commissioner, to protect the ground water of the State and the health, safety, and general well-being of persons using or potential users of ground water.

b. Any request for modification shall be submitted to the Commissioner in writing and shall be signed by the licensed explorer and the designated responsible individual. Such request shall specify in detail the nature of the modification being

sought, the reasons therefor, and the special precautions to be taken to avoid contamination of the ground water. The request shall also include: the proposed boring depth, casing type and depth, method of construction and grouting, geological conditions likely to be encountered, and location of the boring and of possible sources of contamination. Whether or not the request is granted, the Commissioner shall state in detail the reasons for the decision.

B. Definitions.

For the purpose of this rule, the following terms or phrases shall have the meaning given them, except where the context clearly indicates otherwise.

1. "Aquifer" means a water-bearing formation (soil or rock horizon).

2. "Act" means Minnesota Statutes §§ 156A.01-156A.08, as amended, under which this rule is promulgated.

3. "Annular space" means the space between two cylindrical objects one of which surrounds the other, such as the space between a drillhole and a casing pipe, or between a casing pipe and liner pipe.

4. "APA" means the Administrative Procedure Act, Chapter 15, Minnesota Statutes.

5. "Casing" means an impervious durable pipe placed in a boring to prevent the walls from caving and to seal off surface drainage or undesirable water, gas or other fluids to prevent their entering the boring and the ground water.

6. "Cesspool" means an underground pit into which raw household sewage or other untreated liquid waste is discharged and from which the liquid seeps into the surrounding soil or is otherwise removed.

7. "Commissioner" means the commissioner of health or his or her authorized representative.

8. "Council" means the Water Well Contractors and Exploratory Borers Advisory Council, created pursuant to the provisions of Minnesota Statutes § 156A.06.

9. "Established ground surface" means the intended or actual finished grade (elevation) of the surface of the ground at the site of the exploratory boring.

10. "Exploratory boring" means any surface drilling done for the exploration of oil, natural gas or metallic minerals as defined in Minnesota Statutes, Section 156A.02, subdivision 5.

11. "Explorer" means a person who has the right to drill any exploratory boring.

12. "Geological material" means all materials penetrated in drilling an exploratory boring.

a. The following table lists materials other than consolidated rock classified according to average particle size (Wentworth 1922):

Particle Diameters

Material	Millimeters	Inches	Screen Slot No. From	To
Clay	Up to - 0.005	Up to 0.0002		
Silt	0.005 - 0.062	0.0002 - 0.0025		
Fine Sand	0.062 - 0.250	0.0025 - 0.010	2	10
Medium Sand	0.250 - 0.50	0.010 - 0.020	10	20
Coarse Sand	0.50 - 1.00	0.020 - 0.040	20	40
Very Coarse Sand	1.00 - 2.00	0.040 - 0.080	40	80
Fine Gravel	2.00 - 4.00	0.080 - 0.160	80	160
Coarse Gravel	4.00 - 62.50	0.160 - 2.50	160 & larger	
Cobbles	62.5 - 250.0	2.50 - 10.0		
Boulders	250.0 and larger	10.0 and larger		

b. "Alluvium" is a general term for clay, silt, sand, gravel or similar unconsolidated material deposited during comparative recent geologic time by a stream or other body of running water as a sorted or semi-sorted sediment.

c. "Glacial drift (unconsolidated)" means a general term applied to all rock material (clay, sand, gravel and boulders) transported by a glacier and deposited directly by or from the ice or by running water emanating from the glacier.

d. "Glacial outwash" means a stratified sand and gravel removed or washed out from a glacier by meltwater streams and deposited in front of or beyond the terminal moraine or the margin of an active glacier.

e. "Hardpan" is a term to be avoided if possible, but when used means a hard impervious layer composed chiefly of clay, cemented by relatively insoluble materials, which

does not become plastic when mixed with water and definitely limits the downward movement of water and roots.

f. "Shale" means rock consisting of hardened silts and clays.

g. "Sandstone" means cemented or otherwise compacted sediment composed predominately of sand-sized quartz grains..

h. "Limestone" means rock which contains at least 80% of carbonates of calcium and has strong reaction with HCl (muriatic acid).

i. "Dolomite" means rock which contains at least 80% of carbonates of magnesium and has a weak reaction with HCl (muriatic acid).

j. "Gypsum" means a soft light colored formation of calcium sulfate crystals and may be found as streaks in a shale formation.

13. "Grout" means neat cement, concrete, heavy drilling fluid or heavy bentonite slurry.

a. "Neat cement" means a mixture of 1 bag (94 pounds) of Portland cement meeting the standard specifications of ASTM C150-69a, and not more than 6 gallons of clean water. Bentonite up to 2% by weight of cement may be used to reduce shrinkage. Other admixtures meeting the standard specifications of ASTM C494-68 may be used to reduce permeability and/or control time of set.

b. "Concrete" means a mixture of Portland cement, sand and water in the proportion of 1 bag (94 pounds) of Portland cement meeting the standard specifications of ASTM C150-69a, and an equal volume of dry sand and not more than 6 gallons of clean water. Where large volumes are required to fill annular openings, gravel not larger than 1/2-inch size may be added.

c. "Heavy drilling fluid" or "heavy bentonite slurry" shall contain a high percentage of clay or bentonite to minimize shrinkage of the slurry. Bentonite shall contain at least 85% of the mineral monmorillinite and shall meet American Petroleum Institute specification standard 13A (March 1966). Heavy drilling fluid or heavy bentonite slurry shall be of sufficient viscosity to require a time of at least 70 seconds to discharge 1 quart of the material through an API Marsh funnel viscometer. Saline, acid, or alkaline substances or other additives that cause a temporary increase in viscosity of the bentonite slurry are not permitted.

14. "Person" means any natural person, corporation, partnership, or other business association.

15. "Pollution" or "contamination" means the presence or addition of any substance to water which is or may become injurious to the health, safety or welfare of the general public or private individuals and which is or may become injurious to domestic, commercial, industrial, agricultural or other uses which are being made of such water.

16. "Responsible individual" means a person who has met the qualifications prescribed in part C.4.a. and has been approved for designation by the Commissioner in accordance with the terms of part C.4.d.

17. "Seepage pit" or "dry well" means an underground pit into which a septic tank discharges household sewage or other liquid waste and from which the liquid seeps into the surrounding soil through the bottom and openings in the side of the pit.

18. "Septic tank" means a watertight tank of durable materials through which sewage flows very slowly and in which solids separate from the liquid to be decomposed or broken down by bacterial action.

19. "Sewage" means the water carried waste products from residences, public buildings, including the excrementious or other discharges from the bodies of human beings or animals together with such ground water infiltration and surface water as may be present.

20. "Sewer" means a pipe or conduit carrying sewage or into which sewage may back up.

21. "Static water level" means the distance measured from the established ground surface to the water surface in a boring neither being pumped, nor under the influence of pumping nor flowing under artesian pressure.

22. "Subsurface disposal field," "seepage bed," "drainfield," "percolation system," or "tile absorption field" means a system

composed of open jointed tile lines buried in stones and shallow trenches or beds for final disposal into the ground of sewage effluent from a septic tank. The septic tank effluent is applied to land by distribution beneath the surface through the open jointed lines.

23. "Subterranean gas" means a gas occurring below the land surface. It may be flammable such as methane or highly toxic as hydrogen sulfide and may be associated with ground water.

24. "Water" varieties mean:

a. "Ground water" means the water in the zone of saturation in which all of the pore spaces of the subsurface material are filled with water.

b. "Near surface water" means water in the zone immediately below the ground surface. It may include seepage from barnyards, disposal beds or leakage from sewers, drains, and similar sources of pollution.

c. "Surface water" means water that rests or flows on the surface of the ground.

C. Licensing:

1. No person shall drill, construct or otherwise cause to be made, an exploratory boring unless he possesses, or is employed by one who possesses a valid explorer's license issued by the Commissioner.

2. An explorer engaging in exploratory boring shall obtain a license in accordance with this rule.

3. A person shall annually apply for an explorer's license by submitting to the Commissioner a properly completed application accompanied by a $50.00 license fee, payable to the Treasurer, State of Minnesota. An explorer's license shall be effective for the calendar year for which it is issued.

a. The person applying for an explorer's license shall include the name of the responsible individual who will supervise or oversee the location, construction, and abandonment of exploratory borings on behalf of the explorer.

b. If the person applying for the explorer's license does not designate a responsible individual, the commissioner shall issue a conditional license. Such a license is not considered valid for the purpose of engaging in the construction of exploratory borings until a responsible individual has been designated and the Commissioner has been notified of such designation. The notification of designation shall be made at least 10 days prior to the commencement of exploratory boring.

4. Qualification as responsible individual.

a. A person who seeks to qualify for designation as a responsible individual shall

(1) complete and submit an application for qualification to the Commissioner, along with a $50.00 fee which is payable to the Treasurer, State of Minnesota,

(2) have three years of experience in which he or she supervised or personally drilled five exploratory borings per year and provide documentation of such experience, and

(3) take and pass an examination on the portions of this rule which relate to mineral exploration activities, or document the fact that he or she is a registered professional engineer or certified professional geologist, in accordance with Minn. Stat. § 156A.071, subd. 2.

(a) A person may take the examination as many times as he desires. Each new application for qualification shall be accompanied by a new fee.

(b) The examination shall consist of any combination of written, oral, or practical work based on the substance of this rule and an evaluation interview by the Council.

b. The Commissioner shall not act upon the application for qualification until he has received reference letters which document the 3 years of experience.

c. When the Commissioner determines that an individual has met all the qualifications prescribed in part C.4 (above), the Commissioner shall notify the person and shall enter that person's name on a list of persons who qualify for designation as responsible individuals.

5. Revocation of License; Disqualification.

a. The Commissioner or Council may cause an investigation to be made in any case in order to determine whether there has been a violation of the Act or this rule, and, in so doing may request the explorer and/or the designated responsible individual to appear before them to determine the merits of

the situation in question. The Council may make a recommendation to the Commissioner as to whether proceedings under the act and the APA would be appropriate.

b. Any disciplinary action taken under this rule shall comply with the APA.

c. The Commissioner may revoke the license of an explorer and may disqualify a responsible individual upon finding that the explorer or the designated responsible individual has violated the act or this rule. The Commissioner may initiate such proceedings upon his own motion or upon recommendation of the Council.

d. A license may be revoked and a responsible individual may be disqualified until certain conditions are fulfilled and/or for a specified period of time as determined to be most appropriate by the Commissioner. A revoked license shall be returned to the Commissioner.

e. Reinstatement:

(1) An explorer who has had his license revoked may be relicensed by submitting the usual application and fee.

(2) A responsible individual who has been disqualified may be requalified by following the procedure prescribed in C.4.b.

(3) The Commissioner shall require an investigation or hearing to determine whether an explorer should be issued a new license or a responsible individual should be requalified

provided, however, that in no case shall a new license be issued or a responsible individual be requalified prior to one year after revocation or disqualification has taken effect.

D. Location of Exploratory Borings.

An exploratory boring shall be located so that the boring and its surrounding area can be kept in a sanitary condition.

1. Distance from pollution or source of contamination:

a. an exploratory boring shall be located at least:

(1) One-hundred-fifty feet (150 feet) from a preparation area or storage area of spray materials, commercial fertilizers or chemicals that may result in pollution of the soil or ground water.

(2) One-hundred feet (100 ft.) from a below grade manure storage area if in conformance with Minnesota Pollution Control Regulation SW52(2)(e).

(3) Seventy-five feet (75 ft.) from cesspools, leaching pits and dry wells.

(4) Fifty feet (50 ft.) from a buried sewer, septic tank, subsurface disposal field, grave, animal or poultry yard or building, privy, or other contaminants that may drain into the soil.

(5) Twenty feet (20 ft.) from a buried sewer constructed of cast-iron pipe or plastic pipe (ASTM 2665 for polyvinyl chloride pipe or ASTM 2661 for acrylonitrile-butadiene-styrene pipe, as prescribed in the Minnesota Plumbing Code, 7MCAR

§ 1.123C.3) with tested watertight joints, a pit or unfilled space below ground surface, a sump or a petroleum storage tank except that an exploratory boring may be drilled closer than 20 feet to an approved basement.

2. An exploratory boring shall not be located within fifteen feet (15 ft.) of a gas line or overhead electric distribution line or twenty-five feet (25 ft.) from an electric transmission line which is in excess of 50 kV. Where there is a question of the voltage in an electrical line the 25-foot distance should be observed or where less distance is required the utility company should be consulted for their recommendation for safe distances.

E. General Protection of Groundwater Quality.

1. Drilling mud additives shall be stored in clean containers and shall be free of material that may adversely affect the aquifer.

2. Water used for cooling parts of engines, air compressors, or other equipment or water used for air conditioning, shall not be returned into the boring.

3. An exploratory boring shall not be used for disposal of surface water, near surface water, or ground water or any other liquid, gas or chemical.

4. Water used for drilling, development or rehabilitation purposes, other than from the boring itself, shall be chlorinated clear water containing a free chlorine residual at the time

of use and be conveyed in clean sanitary containers or water lines.

5. Drilling mud, cuttings and discharged water shall not be disposed in a manner so as to create damage to public or private property.

6. Exploratory borings encountering flowing artesian conditions should be constructed to prevent erosion of the aquifer or the overlying confining mantle.

7. An exploratory boring shall be constructed and maintained in such a manner as to prevent all known sources of contamination from entering the boring at any time.

8. Any boring which encounters a cavernous limestone formation shall be cased and grouted to prevent the introduction of surface water into the ground water and to prevent the passage of water from one aquifer to another.

F. Abandonment of Exploratory Borings.

1. Abandonment of all exploratory borings shall be carried out in accordance with the provisions of chapter 156A and this rule. Abandonment, whether temporary or permanent, shall be undertaken immediately upon completion of drilling activities. The Commissioner may order that an exploratory boring be sampled and any contamination be removed prior to abandonment. If an exploratory boring provides a potential or actual source or channel of contamination for an aquifer, the Commissioner may order that the boring be permanently abandoned.

2. Temporary abandonment.

a. A temporarily abandoned exploratory boring shall be maintained whereby it is not a source or channel of contamination for any aquifer.

b. Until a boring is permanently abandoned, all provisions for protection of the ground water against contamination and pollution and for maintaining satisfactory sanitary conditions around the boring shall be carried out.

c. A boring which is temporarily abandoned shall be constructed to prevent the introduction of surface contaminants into the boring to prevent the passage of water from one aquifer to another. At the minimum, a temporarily abandoned boring shall be cased from bedrock or from the bottom of the boring if the boring terminates in unconsolidated materials, to a point one foot above the ground surface, or if in a flood plain, at least two feet above the level of the highest flood of record. The casing shall be protected with an overlapping cap which will prevent any surface contamination from entering the boring.

d. Any boring which is temporarily abandoned shall be marked and protected with four steel posts (schedule 40 steel pipe) of at least 4-inch diameter at equal distances from each other and which are placed 2 feet from the center of the casing. Such posts shall be installed to a depth of 4 feet into solid ground, or to a depth of 2 feet if each post is surrounded with 1 foot of concrete to a depth of 2 feet.

e. A boring shall not be temporarily abandoned for more than two years.

3. Permanent abandonment.

a. Whenever the explorer determines that a boring need not remain open any longer, or whenever he is about to lose the right to explore, the explorer shall permanently abandon the boring. The boring shall be filled with grout to prevent contaminating materials from entering the water-bearing ground formations.

b. All materials, debris and obstructions that may interfere with sealing operations shall be removed from the boring. Liner pipe shall be removed or perforated when necessary to assure placement of an effective seal. The Commissioner shall be consulted for instruction in case of abandonment of a contaminated boring or where there is a question of proper procedure.

c. All casing and screen may be salvaged except casing that has been cemented in place. The boring shall be filled with appropriate sealing materials as described in subpart F.3.g. prior to removal of the casing.

d. The top of the hole shall be filled with 10 feet of cement or concrete grout to within 2 feet of the land surface. Casing remaining in the hole shall be cut off at least 2 feet below land surface. The remaining top 2 feet of hole shall be filled with native topsoil.

e. When concrete, cement or heavy drilling fluid is used as a grout material, it shall be inserted in the boring through a grout pipe from the bottom of the boring upward to the surface under pressure.

f. The flow in a boring encountering flowing artesian conditions[1] shall be confined if possible; and the boring abandoned in accordance with this rule .

g. A permanently abandoned boring shall be filled and sealed using one or more of the following substances in accordance with the geological materials penetrated.

(1) The section of a boring in unconsolidated deposits shall be filled with neat cement, concrete, or heavy drilling fluid to provide a permeability no greater than the natural condition.

(2) The section of a boring in a rock formation shall be filled with neat cement or concrete.

(3) The section of a boring in a cavernous or creviced rock (such as cavernous limestone or creviced granite, etc.) shall be filled with concrete or neat cement or alternate

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[1]Proper judgment shall be exercised in the feasibility and practicability of sealing a boring encountering flowing artesian conditions. In some cases the confining formation may have been so badly disturbed that sealing may only cause the flow to discharge in a less appropriate location. In other situations, the flow may have eroded so much material that the landscape has taken on the appearance of a natural spring. The sealing in this case may be impractical, if not impossible.

layers of concrete or neat cement and gravel or stone aggregate. At the top of the cavernous or creviced formation, the filling shall be completed by a layer of neat cement or concrete extending at least ten feet (10 feet) into the above overlying formation, and finished as provided in these rules.

(4) A boring so large that the use of neat cement, concrete or heavy drilling fluid is impractical, may be sealed with other materials subject to the approval of the Commissioner.

4. Abandonment Report. Within 30 days of temporary or permanent abandonment, the explorer shall submit an abandonment report, as required by Minnesota Statutes § 156A.017, Subdivision 8, to the Commissioner. The abandonment report shall specify whether the boring is being temporarily or permanently abandoned. A separate abandonment report shall be filed when a temporarily abandoned boring is permanently abandoned.