ILLINOIS POLLUTION CONTROL BOARD May 24, 1990

IN THE MATTER OF:) R89-11 UIC UPDATE, USEPA REGULATIONS (1-1-89 THROUGH 11-30-89))

ADOPTED RULE. FINAL ORDER.

ORDER OF THE BOARD (By J. Anderson):

Pursuant to Sections 13(c) and 22.4(a) of the Environmental Protection Act (Act), the Board is amending the Underground Injection Control (UIC) regulations.

Both Sections provide for quick adoption of regulations which are "identical in substance" to federal regulations and that Title VII of the Act and Section 5 of the Administrative Procedure Act (APA) shall not apply. Because this rulemaking is not subject to Section 5 of the APA, it is not subject to first notice or to second notice review by the Joint Committee on Administrative Rules (JCAR). The federal UIC regulations are found at 40 CFR 144, 146 and 148. This rulemaking updates UIC rules to correspond with major federal amendments more fully outlined in the accompanying Opinion.

This Order is supported by an Opinion adopted on the same day. The Board received public comment on the proposal for a period of 45 days following its publication in the Illinois Register on February 21, 1990 (Part 720, at 14 Ill. Reg. 3006, and Part 730, at 14 Ill. Reg. 3014) and March 7, 1990 (Part 738, at 14 Ill. Reg. 3823). The complete text of the adopted rules follows.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Order was adopted on the 244 day of 274, 1990, by a vote of 7-6.

Dorothy M. Gudn, Clerk Illinois Pollution Control Board

TITLE 35: ENVIRONMENTAL PROTECTION SUBTITLE G: WASTE DISPOSAL CHAPTER I: POLLUTION CONTROL BOARD SUBCHAPTER d: UNDERGROUND INJECTION CONTROL AND UNDERGROUND STORAGE TANK PROGRAMS

PART 730

UNDERGROUND INJECTION CONTROL OPERATING REQUIREMENTS

SUBPART A: GENERAL

- 730.101 Applicability, Scope and Effective Date
- 730.102 Laws Authorizing Regulations
- 730.103 Definitions
- 730.104 Criteria for Exempted Aquifers
- 730.105 Classification of Injection Wells
- 730.106 Area of Review
- 730.107 Corrective Action
- 730.108 Mechanical Integrity
- 730.109 Criteria for Establishing Permitting Priorities
- 730.110 Plugging and Abandoning Class I and III Wells

SUBPART B: CRITERIA AND STANDARDS APPLICABLE TO CLASS I NON-HAZARDOUS WELLS

Section

Section

- 730.111 Applicability
- 730.112 Construction Requirements
- 730.113 Operating, Monitoring and Reporting Requirements
- 730.114 Information to be Considered by Agency

SUBPART C: CRITERIA AND STANDARDS APPLICABLE TO CLASS II WELLS

- Section
- 730.121 Adoption of Criteria and Standards Applicable to Class II Wells by the Illinois Department of Mines and Minerals

SUBPART D: CRITERIA AND STANDARDS APPLICABLE TO CLASS III WELLS

Section

- 730.131 Applicability
- 730.132 Construction Requirements
- 730.133 Operating, Monitoring and Reporting Requirements
- 730.134 Information to be Considered by the Agency

SUBPART F: CRITERIA AND STANDARDS APPLICABLE TO CLASS V INJECTION WELLS

- Section
- 730.151 Applicability
- 730.152 Inventory and Assessment

SUBPART G: CRITERIA AND STANDARDS APPLICABLE TO CLASS I HAZARDOUS WELLS

Section	
730.161	Applicability and Definitions
730.162	Minimum Criteria for Siting
730.163	Area of Review
730.164	Correction Action for Wells in the Area of Review
730.165	Construction Requirements
730.166	Logging, Sampling and Testing Prior to New Well Operation
730.167	Operating Requirements
730.168	Testing and Monitoring Requirements
730.169	Reporting Requirements
730.170	Information to be Evaluated by the Director
730.171	Closure
730.172	Post-Closure Care
730.173	Financial Responsibility for Post-Closure Care

AUTHORITY: Implementing Sections 13 and 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1987 and 1988 Supp. ch. 111 1/2, pars. 1013, 1022.4 and 1027).

SOURCE: Adopted in R81-32, 47 PCB 93, at 6 Ill. Reg. 12,479, effective as, noted in 35 Ill. Adm. Code 700.106; amended in R82-19, 53 PCB 131 at 7 Ill. Reg. 14426 effective as noted in 35 Ill. Adm. Code 700.106; recodified at 10 Ill. Reg. 14174; amended in R89-2 at 14 Ill. Reg. 3130, effective February 20, 1990; amended in R89-11 at 14 Ill. Reg. , effective

SUBPART A: GENERAL

Section 730.108 Mechanical Integrity

- a) The applicant or permittee must demonstrate mechanical integrity when required by other Sections. An injection well has mechanical integrity if:
 - There is no significant leak in the casing, tubing or packer; and
 - 2) There is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection bore.
- b) One of the following tests may be used to demonstrate the absence of significant leaks under <u>paragraphsubsection</u> (a)(1):
 - 1) Monitoring of annulus pressure; or
 - 2) Pressure test with liquid or gas.
- c) One of the following methods may be used to determine the absence of significant fluid movement under <u>paragraphsubsection</u> (a)(2):

- 1) The results of a temperature or noise log; or
- 2) For Class III wells where the nature of the casing precludes the use of the logging techniques prescribed at <u>paragraphsubsection</u> (c)(1), cementing records demonstrating the presence of adequate cement to prevent migration; or
- 3) For Class III wells where the Agency elects to rely on cementing records to demonstrate the absence of significant fluid movement, the monitoring program prescribed by 35 Ill. Adm. Code 730.113(b) shall be designed to verify the absence of significant fluid movement.
- d) The Agency may allow the use of a test to demonstrate mechanical integrity other than those listed in paragraphssubsections (b) and (c). To obtain approval, the owner or operator shall submit a written request to the Agency, which shall sets forth the proposed test and all technical data supporting its use. The Agency shall approve the request if itthe test will reliably demonstrate the mechanical integrity of wells for which its use is proposed.
- e) In conducting and evaluating the tests enumerated in this <u>sSection</u> or others to be allowed by the Agency, the owner or operator and the Agency shall apply methods and standards generally accepted in the indestry. When the owner or operator reports the results of mechanical integrity tests to the Agency, <u>heit</u> shall include a description of the test and the method used. In making its evaluation, the Agency shall review monitoring and other test data submitted since the previous evaluation.

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(Source: Amended at 14 Ill. Reg. , effective

TITLE 35: ENVIRONMENTAL PROTECTION SUBTITLE G: WASTE DISPOSAL CHAPTER I: POLLUTION CONTROL BOARD SUBCHAPTER d: UNDERGROUND INJECTION CONTROL AND UNDERGROUND STORAGE TANK PROGRAMS

PART 738 HAZARDOUS WASTE INJECTION RESTRICTIONS

SUBPART A: GENERAL

Section

- 738.101 Purpose Scope and Applicability
- 738.102 Definitions
- 738.103 Dilution Prohibited as a Substitute for Treatment
- 738.104 Case-by-Case Extensions of an Effective Date
- 738.105 Waste Analysis

SUBPART B: PROHIBITIONS ON INJECTION

Section

738.110	Waste Specific Prohibitions - Solvent Wastes
738.111	Waste Specific Prohibitions - Dioxin-Containing Wastes
738.112	Waste Specific Prohibitions - California List Wastes
738.114	Waste Specific Prohibitions - First Third Wastes
<u>738.115</u>	Waste Specific Prohibitions - Second Third Wastes
<u>738.116</u>	<u>Waste Specific Prohibitions - Third Third Wastes</u>

SUBPART C: PETITION STANDARDS AND PROCEDURES

Section	
738.120	Petitions to Allow Injection of a Prohibited Waste
738.121	Required Information to Support Petitions
738.122	Submission, Review and Approval or Denial of Petitions
738.123	Review of Adjusted Atandards
738.124	Termination of Adjusted Standards

AUTHORITY: Implementing Section 13 and 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 1013, 1022.4 and 1027).

SOURCE: Adopted in R89-2 at 14 Ill. Reg. 3059, effective February 20, 1990; amended in R89-11 at 14 Ill. Reg. , effective).

SUBPART B: PROHIBITIONS ON INJECTION

Section 738.110 Waste Specific Prohibitions - Solvent Wastes

- a) <u>35 Ill. Adm Code 721.131 spent solvents:</u>
 - 1) The spent solvent wastes specified in 35 Ill. Adm. Code 721.131 asby the following EPA Hazardous Waste numbers F001, F002, F003, F004 and F005 are prohibited from underground injection unless the solvent waste is a solvent-water mixture or solvent-containing sludge containing less than 1 percent total of the following F001 through F005 solvent consitituents listed in subsection (a)(2):
 - F001 F002 F003 F004 F005

2) F001 through F005 solvent constituents:

Acetone n-Butyl alcohol Carbon disulfide Carbon tetrachloride Chlorobenzene Cresols and cresylic acid Cyclohexanone 1,2-Dichlorobenzene Ethyl acetate Ethyl benzene Ethyl ether Isobutanol Methanol Methylene chloride Methylene chloride (from the pharmaceutical industry) Methyl ethyl ketone Methyl isobutyl ketone Nitrobenzene Pyridine Tetrachloroethylene Toluene 1,1,1-Trichloroethane 1,1,2-Trichloro-1,2,2-trifluoroethane Trichloroethylene Trichlofluoromethane Xylene

- b) Effective August 8, 1990, all spent F001 through F005 solvent wastes containing less than 1 percent total F001 through F005 solvent constituents listed in subsection (a)(2) are prohibited from injection.
- c) The requirements of subsections (a) or (b) do not apply:
 - If the wastes meet or are treated to meet the standards of 35 Ill. Adm. Code 728.141Subpart D; or
 - If an adjusted standard has been granted in response to a petition under Subpart C; or
 - 3) During the period of extension of the applicable effective date, if an extension has been granted under Section 738.141Subpart D; or
 - 4) During the period the waste has been granted an adjusted treatment standard under 35-Ill. Adm. Code 728.144.

BOARD NOTE: Derived from 40 CFR 148.10 (19889), as added at 53 Fed. Reg. 28155, July 26, 1988.

(Source: Amended at 14 Ill. Reg. , effective)

Section 738.111 Waste Specific Prohibitions - Dioxin-Containing Wastes

a) The dioxin-containing wastes specified in 35 Ill. Adm. Code 721.131 asby the following EPA Hazardous Waste numbers F020, F021, F022, F023, F026, F027 and F028 are prohibited from underground injection:

<u>F020</u>

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F021 F022 F023 F026 F027 F028

- b) The requirements of subsection (a) do not apply:
 - If the wastes meet or are treated to meet the standards of 35 Ill. Adm. Code 728.141Subpart D; or
 - If an adjusted standard has been granted in response to a petition under Subpart C; or
 - 3) During the period of extension of the applicable effective date, if an extension has been granted under Section 738.104; or
 - 4) During the period the waste has been granted an adjusted treatment standard under 35 Ill. Adm. Code 728.144.

BOARD NOTE: Derived from 40 CFR 148.11 (19889), as added at 53 Fed. Reg. 28155, July 26, 1988.

(Source: Amended at 14 Ill. Reg. , effective)

Section 738.114 Waste Specific Prohibitions - First Third Wastes

<u>a)</u> <u>1)</u> The wastes specified in 35 Ill. Adm. Code 721.131 by the following EPA Hazardous Waste number are prohibited from underground injection:

F006 (nonwastewaters)

2) The wastes specified in 35 Ill. Adm. Code 721.132 by the following EPA Hazardous Waste numbers are prohibited from underground injection:

K001
K015 (wastewaters)
K016 (at concentrations greater than or equal to one
percent)
K018
K019
K020
K021 (nonwastewaters generated by the process
described in the waste listing description and
disposed after August 17, 1988, and not those
generated in the course of treating wastewater forms
of these wastes)
K022 (nonwastewaters)

<u>K024</u> **K0**30 K036 (nonwastewaters generated by the process described in the waste listing description and disposed after August 17, 1988, and not those generated in the course of treating wastewater forms of these wastes) K037 <u>K044</u> K045 nonexplosive K046 (nonwastewaters) K047 K048 K060 (nonwastewaters generated by the process described in the waste listing description and disposed after August 17, 1988, and not those generated in the course of treating wastewater forms of these wastes) K061 (nonwastewaters) noncalcium sulfate K069 (nonwastewaters generated by the process described in the waste listing description and disposed after August 17, 1988, and not those generated in the course of treating wastewater forms of these wastes) K086 solvent washes K087 K099 K101 (all wastewaters and less than one percent total arsenic nonwastewaters) K102 (all wastewaters and less than one percent total arsenic nonwastewaters) K103

b) 1) The waste specified in 35 Ill. Adm. Code 721.132 by the following EPA Hazardous Waste number are prohibited from underground injection:

<u>KO36 (wastewaters)</u>

2) The waste specified in 35 Ill. Adm. Code 721.133 by the following EPA Hazardous Waste numbers are prohibited from underground injection:

 P030

 P039

 P041

 P063

 P071

 P089

 P094

 P097

 U221

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<u>U223</u>

<u>c)</u> The wastes specified in 35 Ill. Adm. Code 271.131 by the following EPA Hazardous Waste numbers are prohibited from underground injection:

> <u>F008</u> F009

ed) Effective August 8, 1990, the wastes specified in 35 Ill. Adm. Code 721.132 asby the following EPA Hazardous Waste numbers K049, K050, K051, K052, K062, K071 and K104 are prohibited from underground injection-:

> <u>K049</u> <u>K050</u> <u>K051</u> <u>K052</u> <u>K062</u> <u>K071</u> <u>K104</u>

e) Effective June 7, 1991, the wastes specified in 35 Ill. Adm. Code 721.132 by the following EPA Hazardous Waste number are prohibited from underground injection:

K016 (at concentrations greater than one percent)

f) 1) Effective June 8, 1991, the wastes specified in 35 Ill. Adm. Code 721.131 by the following EPA Hazardous Waste number are prohibited from underground injection:

<u>F007</u>

2) Effective June 8, 1991, the wastes specified in 35 Ill. Adm. Code 721.132 by the following EPA Hazardous Waste numbers are prohibited from underground injection:

> K011 (nonwastewaters) K013 (nonwastewaters)

- b_g) The requirements of subsections (a) through (f) do not apply:
 - If the wastes meet or are treated to meet the applicable standards specified in 35 Ill. Adm. Code 728.Subpart D; or
 - 2) If an adjusted standard has been granted in response to a petition under Subpart C; or
 - 3) During the period of extension of the applicable effective date, if an extension is granted under Section 738.104.

BOARD NOTE: Derived from 40 CFR 148.14 (19889), as added at 53 Fed. Reg. 30918, August 16, 1988 amended at 54 Fed. Reg. 35328, August 25, 1989.

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(Source: Amended at 14 Ill. Reg. , effective

Section 738.115 Waste Specifiec Prohibitions - Second Third Wastes

a) The wastes specified in 35 Ill. Adm. Code 721.132 by the following <u>EPA Hazardous Waste number are prohibited from underground</u> <u>injection</u>:

> K025 (nonwastewaters generated by the process described in the waste listing description and disposed after August 17, 1988, and not those generated in the course of treating wastewater forms of these wastes)

b) 1) The wastes specified in 35 Ill. Adm. Code 721.131 by the following EPA Hazardous Waste numbers are prohibited from underground injection:

<u>F010</u> F024

2) The wastes specified in 35 Ill. Adm. Code 721.132 by the following EPA Hazardous Waste numbers are prohibited from underground injection:

K009 (nonwastewaters)
K010
K027
K028
K029 (nonwastewaters)
K038
K039
K040
K043
K095 (nonwastewaters)
K096 (nonwastewaters)
K113
K114
K115
K116

3) The wastes specified in 35 Ill. Adm. Code 721.133 by the following EPA Hazardous Waste numbers are prohibited from underground injection:

<u> P029</u>	
<u>P040</u>	
<u>P043</u>	
<u>P044</u>	

P062 P074 P085 P098 P104 P106 P111 U028 U058 U107 U235

<u>c)</u> The wastes specified in 35 Ill. Adm. Code 721.131 by the following <u>EPA Hazardous Waste numbers are prohibited from underground</u> <u>injection pursuant to the treatment standards specified in 35 Ill.</u> <u>Adm. Code 728.141 and 728.143 applicable to F011 and F012</u> <u>wastewaters and nonwastewaters:</u>

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F011 (nonwastewaters) F012 (nonwastewaters)

<u>d)</u> Effective June 8, 1991, the wastes specified in 35 Ill. Adm. Code 721.132 by the following EPA Hazardous Waste number are prohibited from underground injection:

K009 (wastewaters)

- e) The requirements of subsections (a) through (d) do not apply:
 - 1) If the wastes meet or are treated to meet the applicable standards specified in 35 Ill. Adm. Code 728.Subpart D; or
 - 2) If an adjusted standard has been granted in response to a petition under Subpart C; or
 - 3) During the period of extension of the applicable effective date, if an extension is granted under Section 738.104.

BOARD NOTE: Derived from 40 CFR 148.15 (1989).

(Source: Added at 14 Ill. Reg. , effective

Section 738.116 Waste Specifiec Prohibitions - Third Third Wastes

a) The wastes specified in 35 Ill. Adm. Code 721.132 by the following EPA Hazardous Waste number are prohibited from underground injection:

> K100 (nonwastewaters generated by the process described in the waste listing description and disposed after August 17, 1988, and not those generated in the course of treating wastewater forms of these wastes).

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b) 1) The wastes specified in 35 Ill. Adm. Code 721.132 by the following EPA Hazardous Waste numbers are prohibited from underground injection:

K005 (nonwastewaters)
K007 (nonwastewaters)
K023
K093
K094

2) The wastes specified in 35 Ill. Adm. Code 721.133 by a the following EPA Hazardous Waste numbers are prohibited from underground injection:

> P013 P021 P099 P109 P121 U069 U087 U088 U102 U190

- c) The requirements of subsections (a) and (b) do not apply:
 - 1) If the wastes meet or are treated to meet the applicable standards specified in 35 Ill. Adm. Code 728.Subpart D; or
 - 2) If an adjusted standard has been granted in response to a petition under Subpart C; or
 - <u>3)</u> During the period of extension of the applicable effective date, if an extension is granted under Section 738.104.

BOARD NOTE: Derived from 40 CFR 148.16 (1989).

(Source: Added at 14 Ill. Reg. , effective)