

BEFORE THE POLLUTION CONTROL BOARD  
OF THE STATE OF ILLINOIS

RECEIVED  
CLERK'S OFFICE  
AUG 16 2010  
STATE OF ILLINOIS  
Pollution Control Board

IN THE MATTER OF: )  
)  
Adjusted Standard Petition of ) AS 07-006  
Cabot Corporation, ) (Adjusted Standard)  
from 35 Ill. Adm. Code 738, Subpart B. )

NOTICE

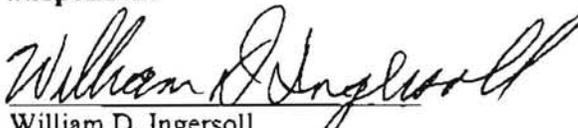
Illinois Pollution Control Board  
Attn: Mr. John Therriault, Clerk  
James R. Thompson Center  
100 West Randolph Street  
Suite 11-500  
Chicago, IL 60601

Seyfarth Shaw LLP  
Attn: Mr. Eric E. Boyd, Esq.  
131 South Dearborn Street  
Chicago, Illinois 60603

PLEASE TAKE NOTICE that I have today filed with the office of the Clerk of the Pollution Control Board an APPEARANCE and RECOMMENDATION OF THE ILLINOIS EPA, copies of which are herewith served upon you.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,  
Respondent



William D. Ingersoll  
Division of Legal Counsel  
Illinois Environmental Protection Agency  
1021 North Grand Avenue, East  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544  
217/782-9143 (TDD)

Dated: August 12, 2010

BEFORE THE POLLUTION CONTROL BOARD  
OF THE STATE OF ILLINOIS

RECEIVED  
CLERK'S OFFICE  
AUG 16 2010  
STATE OF ILLINOIS  
Pollution Control Board

IN THE MATTER OF: )  
)  
Adjusted Standard Petition of ) AS 07-006  
Cabot Corporation, ) (Adjusted Standard)  
from 35 Ill. Adm. Code 738, Subpart B. )

ENTRY OF APPEARANCE

NOW COMES the undersigned, as counsel for and on the behalf of the Environmental Protection Agency of the State of Illinois, and hereby enters his Appearance in the above captioned matter.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,  
Respondent

By   
William D. Ingersoll  
Division of Legal Counsel  
Illinois Environmental Protection Agency  
1021 North Grand Avenue, East  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544  
217/782-9143 (TDD)

Dated: August 12, 2010

BEFORE THE POLLUTION CONTROL BOARD  
OF THE STATE OF ILLINOIS

RECEIVED  
CLERK'S OFFICE

AUG 16 2010

STATE OF ILLINOIS  
Pollution Control Board

IN THE MATTER OF: )  
 )  
 Adjusted Standard Petition of ) AS 07-006  
 Cabot Corporation; ) (Adjusted Standard)  
 from Title 35 of the Illinois Administrative )  
 Code Part 738, Subpart B )

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY RECOMMENDATION

The ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ("Illinois EPA"), by its attorney William D. Ingersoll, hereby submits its **RECOMMENDATION** in the above captioned matter. This filing is submitted pursuant to Section 35 of the Illinois Environmental Protection Act ("EPA Act") [415 ILCS 5/35 (2008)] and 35 Ill. Adm. Code 104 *et seq.* For the reasons outlined below, the Illinois EPA recommends that this petition be **GRANTED**.

I. INTRODUCTION

1. On April 12, 2007, Cabot Corporation ("Petitioner"), filed a *Petition for Reissuance of Adjusted Standard*, seeking relief from Part 738, Subpart B ("Petition"). (Pet. at 1) This Petition was docketed as AS 07-05.
2. According to the Petition in AS 07-05, relief was sought in the form of reissuance of an adjusted standard previously issued for underground injection control ("UIC") wells Nos. 2 and 3 located in Tuscola, Illinois. (Pet. at 1) Petitioner sought re-issuance of the Adjusted Standard granted by the Board in AS 96-3 (issued March 7, 1996) and, as such, an extension of that original relief through and including the date of December 31, 2027. (Pet.

at 4)

3. On May 17, 2007, the Board dismissed the Petition AS 07-05 on grounds that it lacked jurisdiction due to failure of Petitioner to properly provide public notice of the Petition.
  
4. On May 29, 2007, Petitioner filed *Petition For Reissuance of Adjusted Standard* seeking reissuance of AS 96-03 and relief from 35 Ill. Adm. Code, Part 738, Subpart B (prohibiting the injection of certain restricted hazardous waste) for underground injection control wells Nos. 2 and 3 of its Tuscola facility. (Pet. at 1) This Petition was docketed AS 07-06. Also filed with the above pleading were a *Motion For Relief From Filing Requirements*, a *Motion For Incorporation Of Documents* as well as a *Motion to Stay Proceedings on Cabot Corporation's Petitioner For Reissuance of Adjusted Standard*.
  
5. On June 6, 2007, Petitioner filed its *Proof of Publication*.
  
6. On June 28, 2007, the Illinois EPA filed a *Petition for Extension of Time to File the Recommendation of the Illinois EPA*. Petitioner's *Motion for Stay Proceedings* also echoed that the Respondent/Illinois EPA should be granted relief from filing a Recommendation in this matter pending U.S. EPA's decision on Petitioner's U.S. EPA Petition.

7. In its June 28 pleading, Illinois EPA noted that it was interested in U.S. EPA's consideration and ultimate ruling on Petitioner's *Petition for Renewal of Exemption from the Land Disposal Restrictions* since the regulations Petitioner sought relief from are included in both State and federal regulations.
8. Proceedings in AS 07-05 have been stayed as a result of an August 9, 2007, Board ruling. (See: August 9, 2007, Board Order)

## II. INVESTIGATION

9. To date, Respondent has not received a citizen inquiry regarding AS 07-06.
10. These proceedings stem from an original request made by Cabot to U.S. EPA to obtain a federal "no-migration exemption" for its UIC wells.
11. U.S. EPA first ruled on Petitioner's use of UIC Well No. 2, granting relief. (See: Attachment A: 55 Fed. Reg. 4934 (November 27, 1990)) Thereafter, U.S. EPA granted an exemption for Well No. 1. (See: Attachment B: 56 Fed. Reg. 5826 (February 13, 1991)) Later, U.S. EPA modified the federal exemption to clarify that Petitioner indeed was allowed to dispose of leachate and purge water within the UIC wells and later still U.S. EPA

authorized Petitioner to use Well No. 3 for restricted waste. (See: Attachments C and D: 60 Fed. Reg. 58623 (November 28, 1995) and 61 Fed. Reg. 4996 (February 9, 1996))

12. During the pendency of the U.S. EPA petitions, the State of Illinois adopted regulations that were identical-in-substance to the regulations from which Petitioner was seeking federal relief. In rulemaking R89-2, the State adopted prohibitions relating to spend solvents (F003) and liquid corrosive wastes (D002). (See: R-89-2; 35 Ill. Adm. Code Part 738.110(a) and 35 Ill. Adm. Code Part 738.116(c)(2)) Regulation relating to multi-source leachate (F039) was enacted by adoption of R90-14. (See: 35 Ill. Adm. Code Part 738.116(c)(1)) Rulemakings R89-2 and R90-14 were effective in February 20, 1990 and July 24, 1991 respectively.
  
13. On August 3, 1992, Petitioner filed a request for an *Adjusted Standard* requesting a site specific "non-migration exemption" from the UIC land disposal prohibitions within 35 Ill. Adm. Code 738, Subpart B. This proceeding was docketed as AS 92-8. On February 17, 1994, the Board issued an Order granting Petitioner's Adjusted Standard, AS 92-8, for UIC Well Nos. 1 and 2 at the Tuscola facility. The Board placed great weight in the quality of U.S. EPA's technical review and deemed it important to keep Illinois' identical-in-substance environmental programs in conformity with the corresponding federal programs. (See: AS 92-8, February 17, 1994, Board

Order)

14. On August 17, 1995, Petitioner filed a *Petition For Modification and Reissuance of Adjusted Standard* and a *Motion For Stay*. In a September 7, 1995, Order, the Board opened a new docket for the above request, and docketed the matter as AS 96-3. The Board noted that Petitioner's Motion was significantly different from that within AS 92-8 and pointed to an example that Petitioner sought to replace Well No. 1 and sought approval to use a new UIC Well No. 3 as a source for disposal. Since Well No. 3 was not the subject of AS 92-8, the Board found that new public notice of this request would avoid any unnecessary complications with the Board's rules. (See: AS 92-8 and AS 96-3 (not consolidated), September 7, 1995, Board Opinion)
  
15. On March 7, 1996, the Board issued an Order in AS 96-3. Petitioner's Adjusted Standard was granted, with conditions. The Order, in short, granted Petitioner the ability to dispose of leachate, purge water, and other RCRA restricted wastes into three on-site wells (Well Nos. 1, 2 and 3). (See: AS 96-3, March 7, 1996, Board Order)

### III. FACTS PRESENTED IN THE PETITION

16. Of the waste disposed of by UIC well injection, some is restricted under the Resource Conservation and Recovery Act ("RCRA") part 148, Subpart B and Part 738, Subpart B of the Illinois Administrative Code. (See: 40 CFR Part 148, Subpart B and 35 Ill. Adm. Code Part 738, Subpart B) (Pet. at 2)
  
17. Petitioner identified the wastes streams injection within the UIC wells as including: acidic waste water from air scrubbers, stack drains, fan drains, other equipment drains and washdown (D002); unsold by-product HCL (D002); surface water drainage, seepage, multi-source leachate from the leachate collection system, and groundwater and leachate purged from on-site monitoring wells (F039); and spent acetone from the QC laboratory (F003). (Pet. at 2)
  
18. Under an October 18, 2001 permit, Petitioner has injected waste into on-site wells. Historically, and in accordance with AS 96-03, Petitioner used three UIC wells for disposal (Well Nos. 1, 2 and 3). Currently, Cabot uses Well Nos. 2 and 3 for disposal. (Pet. at 2)

#### IV. STATUTORY CRITERIA

##### **STANDARD FROM WHICH ADJUSTED STANDARD IS SOUGHT**

###### **35 Ill. Adm. Code 104.406(a)**

19. Petitioner seeks relief from the prohibitions within 35 Ill. Adm. Code Part 738, Subpart B.

##### **STATEMENT OF IMPLEMENTATION OF FEDERAL REQUIREMENTS**

###### **35 Ill. Adm. Code 104.406(b)**

20. The requirements within 35 Ill. Adm. Code Part 738 were enacted by the Board as an identical-in-substance rulemaking with federal law.

##### **LEVEL OF JUSTIFICATION**

###### **35 Ill. Adm. Code 104.406(c)**

21. The regulations do specify a level of justification or other requirements.  
Board regulations provide as follows:

###### **Section 738.120 Petitions to Allow Injection of a Prohibited Waste**

- a) Any person seeking an exemption from a prohibition under Subpart B of this Part for the injection of a restricted hazardous waste, including a hazardous waste that exhibits a characteristic of hazardous waste and which contains underlying hazardous constituents at the point of generation, but which no longer exhibits a characteristic of hazardous waste when injected into a Class I injection well or wells, must submit a petition for an adjusted standard to the Board, pursuant to Subpart D of 35 Ill. Adm. Code 104, demonstrating that, to a reasonable degree of certainty, there will be no migration of hazardous constituents from the injection zone for as long as the waste remains hazardous. This demonstration requires a showing of the following:
- 1) The hydrogeological and geochemical conditions at the site and the physiochemical nature of the waste

stream are such that reliable predictions can be made with regard to each of the following:

- A) Fluid movement conditions are such that the injected fluids will not migrate within 10,000 years in either of the following ways:
    - i) Vertically upward out of the injection zone; or
    - ii) Laterally within the injection zone to a point of discharge or interface with an underground source of drinking water (USDW), as defined in 35 Ill. Adm. Code 730; or
  - B) Before the injected fluids migrate out of the injection zone or to a point of discharge or interface with a USDW, the fluid will no longer be hazardous because of attenuation, transformation, or immobilization of hazardous constituents within the injection zone by hydrolysis, chemical interactions or other means; and
- 2) For each well, the petition has fulfilled the following requirements:
- A) It has demonstrated that the injection well's area of review complies with the substantive requirements of 35 Ill. Adm. Code 730.163;
  - B) It has located, identified, and ascertained the condition of all wells within the injection well's area of review (as specified in 35 Ill. Adm. Code 730.163) that penetrate the injection zone or the confining zone by use of a protocol acceptable to the Board that meets the substantive requirements of 35 Ill. Adm. Code 730.164;
  - C) It has provided a corrective action plan that meets the substantive requirements of 35 Ill. Adm. Code 730.164, the implementation of which will become a condition of any adjusted standard granted; and
  - D) It has provided the results of pressure and radioactive tracer tests performed within one year prior to submission of the petition demonstrating the mechanical integrity of the well's long string casing, injection tube, annular seal, and bottom hole cement. In cases where the petition has not been approved or denied within one year after the initial demonstration of mechanical integrity, the Board

may require the owner or operator to perform the tests again and submit the results of the new tests.

[BOARD NOTE: The requirements of subsection (a)(2) of this Section need not be incorporated in a permit at the time the Board grants an adjusted standard.]

- b) A demonstration under subsection (a)(1)(A) of this Section must identify the strata within the injection zone which will confine fluid movement above the injection interval, and it must include a showing that this strata is free of known transmissive faults or fractures and that there is a confining zone above the injection zone.
- c) A demonstration under subsection (a)(1)(B) of this Section must identify the strata within the injection zone where waste transformation will be accomplished, and it must include a showing that this strata is free of known transmissive faults or fractures and that there is a confining zone above the injection zone.
- d) A demonstration may include either of the following features, which will become a condition of the adjusted standard:
  - 1) Treatment methods that the owner or operator will use to reduce the toxicity or mobility of the wastes; or
  - 2) A monitoring plan that the owner or operator will use to enhance confidence in one or more aspects of the demonstration.
- e) Any person that has been granted an adjusted standard pursuant to this Section may submit a petition for reissuance of the adjusted standard to include an additional restricted waste or wastes or to modify any conditions imposed on that adjusted standard by the Board. The Board will reissue the adjusted standard if the petitioner complies with subsections (a), (b), and (c) of this Section.
- f) Any person that has been granted an adjusted standard pursuant to this Section may submit a petition to modify that adjusted standard to include an additional (hazardous) waste or wastes. The Board will grant the modification if it determines, to a reasonable degree of certainty, that the additional waste or wastes will behave hydraulically and chemically in a manner similar to previously included wastes and that the additional waste or wastes will not interfere with the containment capability of the injection zone.

[BOARD NOTE: Derived from 40 CFR 148.20 (2005).]

(Source: Amended at 30 Ill. Reg. 4053, effective February 23, 2006)

**DESCRIPTION OF PETITIONER'S ACTIVITY**  
**35 Ill. Adm. Code 104.406(d)**

22. Petitioner intends to continue its use of UIC Wells for disposal of wastes generated on-site. Petitioner operates a facility within Tuscola, Illinois which manufactures fumed metal oxides, including fumed silica (SiO<sub>2</sub>). (Pet. at 1)
- As a direct result of operations and manufacturing processes, the facility generates numerous waste streams, some of this waste is disposed of on-site via use of UIC wells.

**DESCRIPTION OF COMPLIANCE EFFORTS AND ALTERNATIVES**  
**35 Ill. Adm. Code 104.406(e)**

23. The Illinois EPA does take issue with Petitioner's failure to make any representations concerning a description of compliance efforts and alternatives. Such information should be outlined within a petition. Since no information or data is included, the Illinois EPA is unable to provide an analysis of this criterion for the Board's consideration.

**PROPOSED ADJUSTED STANDARD**  
**35 Ill. Adm. Code 104.406(f)**

24. Petitioner offers the following language for the Board's consideration:

Cabot Corporation is hereby granted a reissuance of the adjusted standard from the requirements of 35 Ill. Adm. Code Part 738, Subpart B, for the underground injection control Wells Nos. 2 and 3 at its Tuscola, Illinois facility. This adjusted standard constitutes an

exemption from the prohibitions of Subpart B such as to allow the underground injection disposal of wastes classified as acidic water (D002), by-product hydrochloric (D002), spent acetone (F003) and multi-source leachate (F039). This adjusted standard is subject to all conditions imposed by U.S. EPA pursuant to its grant of Cabot's "Petition for Renewal of Exemption from the Land Disposal Restrictions."

25. The Illinois EPA would note that it is likely appropriate to expressly provide within the final Board Order the date upon which the Board sets for this matter to expire and the citation to the current Federal Register upon which Petitioner relies for its showing of relief from the federal regulations.

**IMPACT ON THE ENVIRONMENT**  
**35 Ill. Adm. Code 104.406(g)**

26. The Illinois EPA does take issue with Petitioner making no reference at all to the issue of the Petitions impact on the environmental. Such information should be outlined within a petition seeking relief from rules of general applicability. Since no information or data is included, the Illinois EPA is unable to provide an analysis of this criterion for the Board's consideration.

**JUSTIFICATION FOR PROPOSED ADJUSTED STANDARD**  
**35 Ill. Adm. Code 104.406(h)**

27. The Burden of Proof contained at Section 104.426 states those matters the Board should consider in rendering a decision regarding a petition for

Adjusted Standard. (See also EPA Act: 415 ILCS 5/27(a)) The Illinois EPA would agree with Petitioner that U.S. EPA has deemed that, based upon the information submitted to U.S. EPA, that relief was appropriate. Further, the Board's regulations are intended to be identical in substance to the regulations from which Petitioner sought and was granted relief at the federal level.

**CONSISTENCY WITH FEDERAL LAW**  
**35 Ill. Adm. Code 104.406(i)**

28. The issuance of relief requested, if limited as expressed within 75 Fed. Reg. 30392 (June 1, 2010), would mean that the Board's action, approving the Petition, would be consistent with federal implementation of the corresponding federal rules as they relate to UIC disposal activities on-site.

**WAIVER OF HEARING**  
**35 Ill. Adm. Code 104.406(j)**

29. The Illinois EPA does not request a hearing in this matter. Should the Board determine that a hearing is necessary, the Illinois EPA will participate.

## V. RECOMMENDATION

A review of the Petition for relief, and corresponding U.S. EPA review and analysis, was made by Illinois EPA technical staff. The Illinois EPA concludes that, based upon the forgoing, the Board should **GRANT** Petitioner's petition for Adjusted Standard in AS 07-6. The Board should also consider within any Order on this matter a requirement that the Petitioner shall modify its current UIC permit, Permit No. UIC-011-CC, in order to reflect U.S. EPA's most recent approval of exemption outlined within the Federal Register. The Board should finally consider providing that Petitioner must continue to operate in accordance with the UIC permit issued by Illinois EPA.

Respectfully submitted,

**ENVIRONMENTAL PROTECTION AGENCY  
OF THE STATE OF ILLINOIS**

By:   
William D. Ingersoll  
Division of Legal Counsel

Of Counsel: Kyle Nash Davis, Esq.

DATED: August 12, 2010  
1021 North Grand Ave. East  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544

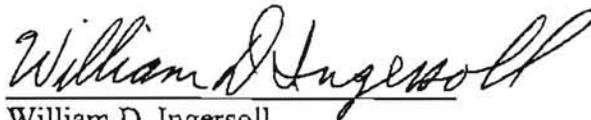
## CERTIFICATE OF SERVICE

I, the undersigned attorney at law, hereby certify that on August 12, 2010 I served true and correct copies of an **APPERANCE and RECOMMENDATION OF THE ILLINOIS EPA**, by placing true and correct copies in properly sealed and addressed envelope and by depositing said sealed envelope in a U.S. mail drop box located within Springfield, Illinois, with sufficient postage affixed thereto, upon the following named persons:

**Illinois Pollution Control Board**  
Attn: Mr. John Therriault, Clerk  
James R. Thompson Center  
100 West Randolph Street  
Suite 11-500  
Chicago, IL 60601

**Seyfarth Shaw LLP**  
Attn: Mr. Eric E. Boyd, Esq.  
131 South Dearborn Street  
Chicago, Illinois 60603

**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,  
Respondent**



William D. Ingersoll  
Division of Legal Counsel  
Illinois Environmental Protection Agency  
1021 North Grand Avenue, East  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544  
217/782-9143 (TDD)