

BEFORE THE POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

IN THE MATTER OF:)

Adjusted Standard Petition of)
Cabot Corporation,)
from 35 Ill. Adm. Code 738, Subpart B.)

AS12-01
(Adjusted Standard)

RECEIVED
CLERK'S OFFICE

MAR 29 2012

STATE OF ILLINOIS
Pollution Control Board

NOTICE

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

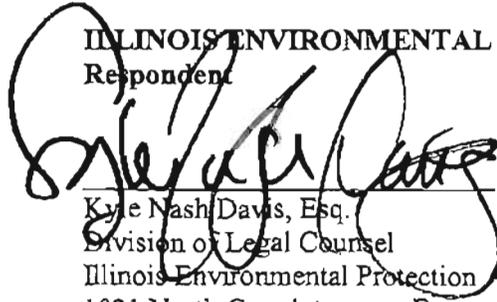
Seyfarth Shaw LLP
Attn: Mr. Eric E. Boyd, Esq./Ms. Ilana R. Morady, Esq.
131 South Dearborn Street
Chicago, Illinois 60603

ORIGINAL
RETURN TO CLERK'S OFFICE

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

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,
Respondent



Kyle Nash Davis, Esq.
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: March 26, 2012

RECEIVED
CLERK'S OFFICE

MAR 29 2012

STATE OF ILLINOIS
Pollution Control Board

CERTIFICATE OF SERVICE

I, the undersigned non-attorney, state that I served a copy of the above-described document to counsel of record via U.S. Mail at 1021 North Grand Ave. East, Springfield, IL 62794, at or before 5:00 p.m.

on March 26, 2012.

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./Ms. Ilana R. Morady, Esq.
131 South Dearborn Street
Chicago, Illinois 60603


Clerical signature

BEFORE THE POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

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

AS 12-1
(Adjusted Standard)



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY RECOMMENDATION

The ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ("Illinois EPA/Respondent"), through its attorney Kyle Nash Davis, Esquire, hereby submits a **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 (2010)] and 35 Ill. Adm. Code 104 *et seq.* For the reasons outlined below, the Illinois EPA recommends that the petition captioned above be **GRANTED**.

I. INTRODUCTION

1. On September 16, 2011, Cabot Corporation ("Petitioner"), filed a Petition to Modify Condition of Adjusted Standard ("Petition"). This request for relief was to be a modification of the Adjusted Standard for Reissuance of Adjusted Standard, seeking relief from Part 738, Subpart B, which had recently been considered and granted by the Illinois Pollution Control Board ("Board") on November 18, 2010. (Order, AS 07-06 (November 18, 2010)). (Pet. at 1)
2. On the same day (September 16, 2011) Petitioner also filed a Motion to Stay Proceeding on Cabot Corporation's Petition to Modify Condition of Adjusted Standard. (See: Pet., Exhibit E)
3. The Illinois EPA filed an Appearance in the matter AS 12-1 on September 26, 2011.

4. On October 4, 2011, Petitioner filed its Certification of Publication with the Board.
5. On November 17, 2011, the Board accepted Petitioner's Petition and further issued an order granting an initial stay until May 10, 2012. (Order, AS 12-01 (November 17, 2011)). In addition, the Board granted the Illinois EPA a stay for filing a Recommendation until June 24, 2012. (Order, AS 12-01 (November 17, 2011))
6. On March 15, 2012, Petitioner filed a Motion to Lift the Stay of Proceedings, Supplement the Record and Request for a Decision.
7. The Board issued an Order lifting the stay of proceedings on March 19, 2012.
8. According to the Petition, pursuant to 35 Ill. Adm. Code Section 738.120(e), Petitioner is requesting a modification of the Adjusted Standard granted by the Board in AS 07-06. (Pet. at 3) The Board provides that it will reissue an adjusted standard if the Petitioner complies with subsections (a), (b) and (c) of that Section. (See: 35 Ill. Adm. Code 738.120(e))
9. Specifically, Petitioner seeks the Board's review of a request to modify limits set within Condition 4.E, Table 1-1, of Adjusted Standard AS 07-06. (Pet. at 4) Petitioner seeks to both modify: (1) the maximum pH parameter for injected waste from 7 to 9, as well as, (2) the maximum temperature parameter for injected waste from 95° F to 120° F. (Pet. at 4)

II. INVESTIGATION

10. To date, Respondent has not received a citizen inquiry regarding AS 12-01.
11. These proceedings stem from an original request made by Cabot Corporation to United States Environmental Protection Agency ("U.S. EPA") to obtain a federal "no-migration exemption" for its UIC wells.
12. U.S. EPA first ruled on Petitioner's use of UIC Well No. 2, granting relief. (See: 55 Fed. Reg. 4934 (November 27, 1990)) Thereafter, U.S. EPA granted an exemption for Well No. 1. (See: 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: 60 Fed. Reg. 58623 (November 28, 1995) and 61 Fed. Reg. 4996 (February 9, 1996))
13. 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 spent 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.

14. On August 3, 1992, Petitioner filed a request for an Adjusted Standard requesting a site specific “no-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: Order, AS 92-8 (February 17, 1994))

15. 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: Order, AS 92-8 and AS 96-3 (not consolidated) (September 7, 1995))

16. 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: Order, AS 96-3 (March 7, 1996))

17. On November 18, 2010, the Board re-issued the Adjusted Standard originally issued in AS 96-3. (See: Order, AS 07-05 (November 18, 2010)).

III. FACTS PRESENTED IN THE PETITION

18. Petitioner rationale for issuance of the proposed modification is located almost exclusively within a September 9, 2011, letter sent to U.S. EPA. Petitioner's September 9, 2011, letter is attached to the Petition at Exhibit B. Within this letter, Petitioner provides that "Cabot has requested these new permit limits as part of a permit application to IEPA, including a maximum pH limit of 9 and a maximum temperature limit of 120° F for the waste injected." (Pet. Exhibit B at 1)
19. The Illinois EPA notes that such revisions were included within a permit renewal application. However, although the Illinois EPA did issue a permit consistent with AS 07-06, the limits proposed within this Petition were not included since such were different from those approved when U.S. EPA considered Petitioner's no-migration exemption for its UIC wells and they were also not consistent with the limits considered by the Board in AS 07-06.
20. Petitioner is currently operating under a permit issued by Illinois EPA on November 20, 2011 (effective January 4, 2010), which requires compliance with Table 1-1 and standards contained therein. Regarding pH a maximum limit of 7 is set and temperature is limited to a maximum of 95° F. (Pet., Exhibit A)

21. In the past, Petitioner has received a Violation Notices from the Illinois EPA based upon exceeding the pH parameters that they now seek to adjust. (See: Recommendation: Attachment A) The matter was resolved by executing a Compliance Commitment Agreement. (See: Recommendation: Attachment B)

22. Petitioner's September 9, 2011, letter further provides that the requested waste constituent limits changes "... do not affect the modeling assumptions that were included in the March 8, 2007 Petition for Renewal of Exemption from the Land Disposal Restrictions document and subsequent response to EPA's Notices of Deficiency." (See: Pet., Exhibit B) No explanation is given to support this presumption.

23. Further, the rationale is supported by the statement that "... the fiberglass injection tubing in each well has sufficient expansion capacity and an operational temperature rating 90° F higher than the requested temperature limit." (See: Pet., Exhibit B at 1)

24. A copy of the statements made to the Illinois EPA within Petitioner's permit application is attached to this Recommendation. (See: Recommendation: Attachment C) Illinois EPA is not presenting these statements for the truth of the matter asserted therein. Nor does the Illinois EPA present them to support the Board's conclusion on this Petition. Illinois EPA will consider such assertions when presented again to the Illinois EPA in a permit modification. These statements are submitted only to provide the Board with available information the Illinois EPA has relative to the Petition.

IV. STATUTORY CRITERIA

STANDARD FROM WHICH ADJUSTED STANDARD IS SOUGHT [35 Ill. Adm. Code 104.406(a)]

25. Petitioner seeks relief from the prohibitions within Table 1-1 within the Board's Order in AS 07-06. (See: Order, AS 07-06 (November 18, 2010) page 2, Condition 4.E, Table 1-1) The Petition in AS 07-06 sought relief from the requirements within 35 Ill. Adm. Code Part 738, Subpart B.

STATEMENT OF IMPLEMENTATION OF FEDERAL REQUIREMENTS [35 Ill. Adm. Code 104.406(b)]

26. The requirements within 35 Ill. Adm. Code Part 738 were enacted by the Board as an "identical-in-substance" rulemaking with federal law. Table 1-1 of the November 18, 2010, Order in AS 07-06 is the same as provided for by U.S. EPA when it rendered a determination on Petitioner's no-migration Petition.

LEVEL OF JUSTIFICATION [35 Ill. Adm. Code 104.406(c)]

27. 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)]

28. 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 (SiO₂). (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. (Pet. at 2)

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

29. 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)]

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

Cabot Corporation is hereby granted a modification of the pH and maximum temperature parameters of Condition 4.E 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. Specifically, Cabot is hereby granted a modification of the pH parameter from 7 to 9, and a modification of the temperature parameter from 95° to 120°.

31. If Petitioner's request is granted by the Board, the Illinois EPA would suggest the following revisions to the above proposed language:

Cabot Corporation is hereby granted a modification of the pH and maximum temperature parameters of within Condition 4.E, Table 1-1, of as adopted by the Board in AS -7-06 (Order. AS 07-06 (November 18, 2010)) ~~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.~~ Specifically, Cabot Corporation is hereby granted a modification of the pH parameter from 7 to 9, and a modification of the temperature parameter from 95° F to 120° F. The Board adopts Table 1.1a proposed within this Petition to replace Table 1.1 of Subsection 4.E of AS 07-06 (Order. AS 07-06 (November 18, 2010))

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

32. The Illinois EPA does take issue with Petitioner making no reference at all to the issue of the proposed new limits within the Petition and an assessment of the impact they may have on the environmental. Such information should be outlined within a Petition seeking relief from conditions already existing within both an approved Adjusted Standard and an Illinois EPA permit. 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)]

33. The Burden of Proof contained at Section 104.426 of 35 Ill. Adm. Code, provides the Board with those matters which should consider in rendering a decision regarding a petition for Adjusted Standard. (See: Section 27(a) of the EPAAct (415 ILCS 5/27(a))) The Illinois EPA would agree with Petitioner that U.S. EPA has deemed, based upon the information submitted to U.S. EPA, that relief as requested is 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.
34. Illinois EPA further notes that when analyzing the present issue, U.S. EPA concluded that the modification requested by Petitioner "... will not invalidate the demonstration of no migration and are therefore considered to be a nonsubstantive

revision to the exemption." (See: Pet., Exhibit E) As such, U.S. EPA replaced the parameters as offered within Petitioner's amended Table 1-1a which has been presented to the Board for adoption.

35. Illinois EPA does not, generally, disagree with U.S. EPA's conclusion.

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

36. The issuance of relief requested, if limited as expressed within U.S. EPA's March 9, 2012, letter to Cabot Corporation, 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)]

37. The Illinois EPA does not request a hearing in this matter.

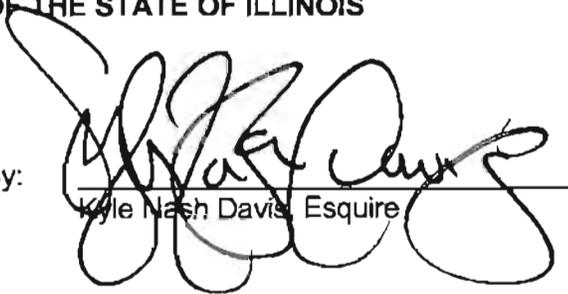
V. RECOMMENDATION

A review of the Petition for relief, and corresponding U.S. EPA review and analysis, was made by Illinois EPA's Bureau of Land technical staff. The Illinois EPA concludes that, based upon the forgoing, the Board should **GRANT** Petitioner's petition for Adjusted Standard in AS 12-01. 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:

A large, stylized handwritten signature in black ink, appearing to read 'Kyle Nash Davis', is written over a horizontal line.

Kyle Nash Davis, Esquire

DATED:
Illinois Environmental Protection Agency
1021 North Grand Ave. East
P.O. Box 19276
Springfield, Illinois 62794-9276
Phone: 217/782-5544
On-line: www.epa.state.il.us

KND: F:\CabotAdjStd\AdjustedStandardRecommendationDraft

EXHIBIT

A



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

217/278-5800
217/278-5808 fax

Certified mail #7004 2890 0000 2470 7354
Return receipt requested

2 February 2012

Cabot Corporation
Attn: Carl Troike, Facility General Manager
700 E. US Highway 36
Tuscola, IL 61953

Re: **Violation Notice L-2012-01013**
0418080001—Douglas County
Tuscola/Cabot Corp
ILD042075333
UIC Compliance File

Dear Mr. Troike:

This constitutes a Violation Notice pursuant to Section 31(a)(1) of the Illinois Environmental Protection Act, 415 ILCS 5/31(a)(1), and is based a record review completed on 24 January 2012 by representatives of the Illinois Environmental Protection Agency ("Illinois EPA").

The Illinois EPA hereby provides notice of alleged violations of environmental laws, regulations, or permits as set forth in the attachment to this notice. The attachment includes an explanation of the activities that the Illinois EPA believes may resolve the specified alleged violations, including an estimate of a reasonable time period to complete the necessary activities. Due to the nature and seriousness of the alleged violations, please be advised that resolution of the violations may also require the involvement of a prosecutorial authority for purposes that may include, among others, the imposition of statutory penalties.

A written response, which may include a request for a meeting with representatives of the Illinois EPA, must be submitted via certified mail to the Illinois EPA within 45 days of receipt of this notice. If a meeting is requested, it shall be held within 60 days of receipt of this notice. The response must include information in rebuttal, explanation, or justification of each alleged violation and a statement indicating whether or not you wish to enter into a Compliance Commitment Agreement ("CCA") pursuant to Section 31(a) of the Act. If you wish to enter into a CCA, the written response must also include proposed terms for the CCA that includes dates for achieving each commitment and may include a statement that compliance has been achieved for some or all of the alleged violations. The proposed terms of the CCA should contain sufficient detail and

must include steps to be taken to achieve compliance and the necessary dates by which compliance will be achieved.

The Illinois EPA will review the proposed terms for a CCA provided by you and, within 30 days of receipt, will respond with either a proposed CCA or a notice that no CCA will be issued by the Illinois EPA. If the Illinois EPA sends a proposed CCA, you must respond in writing by either agreeing to and signing the proposed CCA or by notifying the Illinois EPA that you reject the terms of the proposed CCA.

If a timely written response to this Violation Notice is not provided, it shall be considered a waiver of the opportunity to respond and meet, and the Illinois EPA may proceed with referral to a prosecutorial authority.

Written communications should be directed to:

Illinois EPA — Bureau of Land
Attn: Jeff Turner
2125 South First Street
Champaign, Illinois 61820

Please include the Violation Notice Number **L-2012-01013** and the Site Identification Number **0418080001** on all written communications.

The complete requirements of the Illinois Environmental Protection Act and any Illinois Pollution Control Board regulations cited herein or in the inspection report can be viewed at:

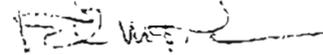
<http://www.ipcb.state.il.us/SLR/TheEnvironmentalProtectionAct.asp>

and

<http://www.ipcb.state.il.us/SLR/IPCBandIEPAEnvironmentalRegulations-Title35.asp>

If you have questions regarding this matter, please contact **Jeff Turner** at **217/278-5800**.

Sincerely,



Paul M. Pursglove, Manager
Field Operations Section
Bureau of Land

PMP:JST
Attachment
Enclosure

bc: Bureau File
Champaign Regional File ✓

Attachment

1. Pursuant to §12(g) of the Illinois Environmental Protection Act (415 ILCS 5/12(g)), no person shall cause, threaten or allow the underground injection of contaminants without a UIC permit issued by the Agency under Section 39(d) of this Act, or in violation of any term or condition imposed by such permit, or in violation of any regulations or standards adopted by the Board or of any order adopted by the Board with respect to the UIC program. [No permit shall be required under this subsection and under Section 39(d) of this Act for any underground injection of contaminants for which a permit is not required under Part C of the Safe Drinking Water Act (P.L. 93-523), as amended, unless a permit is authorized or required under regulations adopted by the Board pursuant to Section 13 of this Act.] *This apparent violation is cited because Cabot has violated its UIC permit.*
2. Pursuant to Condition I.B.3.c of Cabot's permit, UIC-011-CC, the injected waste shall not exceed the maximum limit of the representative parameters indicated below.... pH maximum limit 7. *This apparent violation is cited because Cabot injected wastewater on 15 December 2011 whose pH was greater than 7.*
3. Pursuant to Condition I.H.1 of Cabot's permit, UIC-011-CC, Duty to Comply, the Permittee shall comply with all applicable Underground Injection Control (UIC) program regulations and conditions of this permit, except to the extent and for the duration such noncompliance is authorized by a temporary emergency permit under 35 Ill. Adm. Code 704.163. Any permit noncompliance constitutes a violation of the Illinois Environmental Protection Act and is grounds for enforcement action, permit revocation, modification, or denial of a permit renewal application. Such noncompliance may also be grounds for enforcement action under the Resource Conservation and Recovery Act (RCRA). *This apparent violation is cited because Cabot violated its permit on 15 December 2011 by injecting wastewater whose pH was greater than the permitted limit.*

Suggested resolutions

1. Within thirty days, develop and implement procedures to prevent exceedances of the pH limit.
2. Continue your efforts with USEPA to modify your No-Migration Petition. The Illinois EPA cannot raise the pH limit in your permit beyond what is allowed in the No-Migration Petition.

The written response to this Violation Notice must include information in rebuttal, explanation, or justification of each alleged violation and a statement indicating whether or not you wish to enter into a

Compliance Commitment Agreement (“CCA”) pursuant to Section 31(a) of the Act. If you wish to enter into a CCA, the written response must also include proposed terms for the CCA that includes dates for achieving each commitment and may include a statement that compliance has been achieved for some or all of the alleged violations. The written response must be submitted to the Illinois EPA by certified mail within 45 days of receipt of this Violation Notice.



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

PAT QUINN, GOVERNOR

JOHN J. KIM, INTERIM DIRECTOR

217-785-8604

March 14, 2012

CERTIFIED MAIL #
RETURN RECEIPT REQUESTED
7010 2780 0002 1163 7636

Cabot Corporation
Attn: Carl Troike, Facility General Manager
700 East Highway 36
Tuscola, Illinois 61953

Re: Proposed Compliance Commitment Agreement.
Violation Notice: **L-2012-01013**
0418080001—Douglas County
Tuscola/Cabot Corporation
ILD042075333
Compliance File

ALC Insp Corr

Dear Mr. Troike:

The Illinois Environmental Protection Agency ("Illinois EPA") has reviewed the proposed Compliance Commitment Agreement ("CCA") terms submitted by Cabot Corporation in a letter dated March 1, 2012, in response to the Violation Notice dated February 2, 2012. Pursuant to the authority vested in the Illinois EPA under Section 31(a)(7)(i) of the Illinois Environmental Protection Act ("Act"), 415 ILCS 5/31(a)(7)(i), attached to this letter is a proposed CCA, which contains terms and conditions that the Illinois EPA has determined are necessary in order for Cabot Corporation to attain compliance with the Act and conditions of Cabot's Permit.

Pursuant to Section 31(a)(7.5) of the Act, 415 ILCS 5/31(a)(7.5), within 30 days of your receipt of this proposed CCA, Cabot Corporation or its duly authorized representative must either (1) agree to and sign the proposed CCA, and submit the signed and dated CCA by certified mail to Illinois EPA; or (2) notify the Illinois EPA by certified mail that Cabot Corporation rejects the proposed CCA.

The proposed CCA shall only become effective upon your timely submittal of the signed CCA as discussed above, and upon final execution by the Illinois EPA. Failure by Cabot Corporation to execute and submit the proposed CCA within 30 days of receipt shall be deemed a rejection of the CCA by operation of law. Upon timely receipt of the signed CCA, the Illinois EPA will send you a fully executed copy of the CCA for your records.

In addition, the proposed CCA is not subject to amendment or modification prior to execution by Cabot Corporation and the Illinois EPA. Any amendment or modification to the proposed CCA by Respondent prior to execution by Cabot Corporation and the Illinois EPA shall be deemed a rejection of the proposed CCA by operation of law. The proposed CCA may only be amended subsequent to its effective date, in writing, and by mutual agreement between the Illinois EPA and Cabot Corporation.

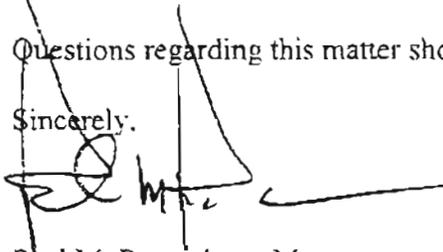
Written communications, including a signed and dated CCA or a notice that the respondent rejects the proposed CCA, should be directed to:

Illinois EPA — Bureau of Land #24
Attn: Paul Purseglove
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Please include the Violation Notice Number **L-2012-01013** and the Site Identification Number **0418080001** on all written communications.

Questions regarding this matter should be directed to **Jeff Turner** at **217/278-5800**.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Purseglove', with a long horizontal line extending to the right.

Paul M. Purseglove, Manager
Field Operations Section
Bureau of Land

Enclosure: Proposed CCA

bcc: Champaign Regional Office
Kyle Davis
Illinois EPA Bureau Records Unit

RECEIVED
MAR 14 2012
ENVIRONMENTAL
PROTECTION AGENCY
CHAMPAIGN

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:)
)
Cabot Corporation)
Tuscola, Douglas County, Illinois)
0418080001)
Compliance File)
) ILLINOIS EPA VN L-2012-01013
) BUREAU OF LAND
)

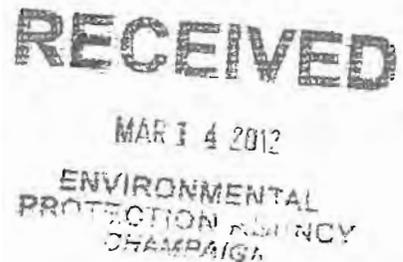
COMPLIANCE COMMITMENT AGREEMENT

I. Jurisdiction

1. This Compliance Commitment Agreement ("CCA") is entered into voluntarily by the Illinois Environmental Protection Agency ("Illinois EPA") and Cabot Corporation ("Respondent") (collectively, the "Parties") under the authority vested in the Illinois EPA pursuant to Section 31(a)(7)(i) of the Illinois Environmental Protection Act ("Act"), 415 ILCS 5/31(a)(7)(i).

II. Allegation of Violations

2. Respondent owns and a chemical manufacturing plant at 700 E. US Highway 36, Tuscola, Illinois.
3. Pursuant to Violation Notice ("VN") L-2012-01013, issued on February 2, 2012, the Illinois EPA contends that Respondent has violated the following provisions of the Act and facility permit:
 - a) Section 12(g) of the Illinois Environmental Protection Act
 - b) Condition I.B.3.c of Cabot's permit, UIC-011-CC
 - c) Condition I.H.1 of Cabot's permit, UIC-011-CC



III. Compliance Activities

4. On March 5, 2012, the Illinois EPA received Respondent's response to VN L-2012-01013, which included proposed terms for a CCA. The Illinois EPA has reviewed Respondent's proposed CCA terms, as well as considered whether any additional terms and conditions are necessary to attain compliance with the alleged violations cited in the VN.
5. Respondent agrees to undertake, complete and continue to maintain the following actions, which the Illinois EPA has determined are necessary to attain compliance with the allegations contained in VN L-2012-01013:
 - a) Cabot Corporation has agreed to update the necessary operating procedures and train affected personnel on the revised operating procedures.

The updating and training were accomplished on February 15, 2012 and March 1, 2012, respectively. Therefore, Cabot Corporation has returned to compliance for the apparent violations of Section 12(g) of the Illinois Environmental Protection Act and Conditions I.B.3.c and I.H.1 of Cabot's permit, UIC-011-CC.

IV. Terms and Conditions

6. Respondent shall comply with all provisions of this CCA, including, but not limited to, any appendices to this CCA and all documents incorporated by reference into this CCA. Pursuant to Section 31(a)(10) of the Act, 415 ILCS 5/31(a)(10), if Respondent complies with the terms of this CCA, the Illinois EPA shall not refer the alleged violations that are the subject of this CCA, as described in Section II above, to the Office of the Illinois Attorney General or the State's Attorney of the county in which the alleged violations occurred. Successful completion of this CCA or an amended CCA shall be a factor to be weighed, in favor of the Respondent, by the Office of the Illinois Attorney General in determining whether to file a complaint on its own motion for the violations cited in VN L-2012-01013.
7. This CCA is solely intended to address the violations alleged in Illinois EPA VN L-2012-01013. The Illinois EPA reserves, and this CCA is without prejudice to, all rights of the Illinois EPA against Respondent with respect to noncompliance with any term of this CCA, as well as to all other matters. Nothing in this CCA is intended as a waiver, discharge, release, or covenant not to sue for any claim or cause of action, administrative or judicial, civil or criminal, past or future, in law or in equity, which the Illinois EPA may have against Respondent, or any other person as defined by Section 3.315 of the Act.

415 ILCS 5/3.315. This CCA in no way affects the responsibilities of Respondent to comply with any other federal, state or local laws or regulations, including but not limited to the Act, the Board Regulations, and any applicable permits.

8. Pursuant to Section 42(k) of the Act, 415 ILCS 5/42(k), in addition to any other remedy or penalty that may apply, whether civil or criminal, Respondent shall be liable for an additional civil penalty of \$2,000 for violation of any of the terms or conditions of this CCA.
9. This CCA shall apply to and be binding upon the Illinois EPA, and on Respondent and Respondent's officers, directors, employees, agents, successors, assigns, heirs, trustees, receivers, and upon all persons, including but not limited to contractors and consultants, acting on behalf of Respondent, as well as upon subsequent purchasers of Respondent's facility.
10. In any action by the Illinois EPA to enforce the terms of this CCA, Respondent consents to and agrees not to contest the authority or jurisdiction of the Illinois EPA to enter into or enforce this CCA, and agrees not to contest the validity of this CCA or its terms and conditions.
11. This CCA shall only become effective:
 - a) If, within 30 days of receipt, Respondent executes this CCA and submits it, via certified mail, to:

Illinois EPA — Bureau of Land #24
Attn.: Paul Purseglove
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

and
 - b) Upon execution by all Parties.

Please Note: If Respondent fails to execute and submit this CCA within 30 days of receipt, via certified mail, this CCA shall be deemed rejected by operation of law.

12. Pursuant to Section 31(a)(7.5) of the Act, 415 ILCS 5/31(a)(7.5), this CCA shall not be amended or modified prior to execution by the Parties. Any amendment or modification to this CCA by Respondent prior to execution by all Parties shall be considered a rejection of the CCA by operation of law. This CCA may only be amended subsequent

to its effective date, in writing, and by mutual agreement between the Illinois EPA and Respondent's signatory to this CCA, Respondent's legal representative, or Respondent's agent.

AGREED:

FOR RESPONDENT:

BY: _____
Signature of Respondent or
Authorized Representative

DATE: _____

Print or Type Name of Respondent
or Authorized Representative and Title

FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:

BY: _____
Paul M. Purseglove, Manager
Field Operations Section
Bureau of Land

DATE: _____

EXHIBIT
B



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
PAT QUINN, GOVERNOR JOHN J. KIM, INTERIM DIRECTOR

217-785-8604

March 22, 2012

Cabot Corporation
Attn: Carl Troike, Facility General Manager
700 E. Highway 36
Tuscola, IL 61953

RECEIVED

MAR 23 2012

ENVIRONMENTAL
PROTECTION AGENCY
CHAMPAIGN

Re: Executed Compliance Commitment Agreement
Violation Notice: **L-2012-01013**
0418080001—Douglas County
Tuscola/Cabot Corporation
ILD042075333
UIC Compliance File *MLC WSP/arr*

Dear Mr. Troike:

Attached to this letter is a signed and fully executed copy of the Compliance Commitment Agreement ("CCA") for your records. The CCA between Cabot Corporation and the Illinois Environmental Protection Agency became effective on March 21, 2012. This CCA in no way affects the responsibilities of Respondent to comply with any other federal, state or local laws or regulations, including but not limited to the Act, and the Board Regulations.

If you should have any questions regarding this matter, please contact me at the number above or at Paul.Purseglove@illinois.gov.

Sincerely,

Paul M. Purseglove, Manager
Field Operations Section
Bureau of Land

cc: Bureau File
Champaign Regional Office

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:)
)
Cabot Corporation)
Tuscola, Douglas County, Illinois)
0418080001)
Compliance File)
) ILLINOIS EPA VN L-2012-01013
) BUREAU OF LAND
)

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 - c) Condition I.H.1 of Cabot's permit, UIC-011-CC

RECEIVED

MAR 21 2012

IEPA/BOL

III. Compliance Activities

4. On March 5, 2012, the Illinois EPA received Respondent's response to VN L-2012-01013, which included proposed terms for a CCA. The Illinois EPA has reviewed Respondent's proposed CCA terms, as well as considered whether any additional terms and conditions are necessary to attain compliance with the alleged violations cited in the VN.
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415 ILCS 5/3.315. This CCA in no way affects the responsibilities of Respondent to comply with any other federal, state or local laws or regulations, including but not limited to the Act, the Board Regulations, and any applicable permits.

8. Pursuant to Section 42(k) of the Act, 415 ILCS 5/42(k), in addition to any other remedy or penalty that may apply, whether civil or criminal, Respondent shall be liable for an additional civil penalty of \$2,000 for violation of any of the terms or conditions of this CCA.
9. This CCA shall apply to and be binding upon the Illinois EPA, and on Respondent and Respondent's officers, directors, employees, agents, successors, assigns, heirs, trustees, receivers, and upon all persons, including but not limited to contractors and consultants, acting on behalf of Respondent, as well as upon subsequent purchasers of Respondent's facility.
10. In any action by the Illinois EPA to enforce the terms of this CCA, Respondent consents to and agrees not to contest the authority or jurisdiction of the Illinois EPA to enter into or enforce this CCA, and agrees not to contest the validity of this CCA or its terms and conditions.
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Illinois EPA — Bureau of Land #24
Attn.: Paul Purseglove
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

and
 - b) Upon execution by all Parties.

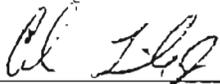
Please Note: If Respondent fails to execute and submit this CCA within 30 days of receipt, via certified mail, this CCA shall be deemed rejected by operation of law.

12. Pursuant to Section 31(a)(7.5) of the Act, 415 ILCS 5/31(a)(7.5), this CCA shall not be amended or modified prior to execution by the Parties. Any amendment or modification to this CCA by Respondent prior to execution by all Parties shall be considered a rejection of the CCA by operation of law. This CCA may only be amended subsequent

to its effective date, in writing, and by mutual agreement between the Illinois EPA and Respondent's signatory to this CCA, Respondent's legal representative, or Respondent's agent.

AGREED:

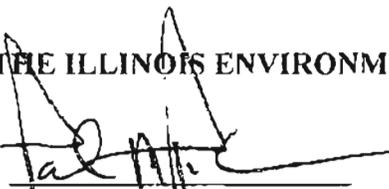
FOR RESPONDENT:

BY: 
Signature of Respondent or
Authorized Representative

DATE: 3-19-12

CARL TREIKE JR
Print or Type Name of Respondent
or Authorized Representative and Title

FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:

BY: 
Paul M. Purselove, Manager
Field Operations Section
Bureau of Land

DATE: 3/21/2012

EXHIBIT
C

8.2 WASTE DESCRIPTION

Cabot classifies their waste stream to be disposed of by injection as D002 (characteristically corrosive), F003 (acetone from the on-site QC laboratory), and F039 (multi-source leachate). Multisource leachate originates from the on-site leachate collection and drainage systems and purged groundwater from the on-site groundwater monitoring wells (including trace amounts of phenol, tetrachloroethylene, trichloroethylene, 1,1-dichloroethylene, 1,2-dichloroethylene, methylene chloride, 1,1-dichloroethane, 1,2-dichloroethane, trans 1,2-dichloroethene, cis 1,2-dichloroethene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, vinyl chloride, chloroethane, chloroform, ethylbenzene, xylene, toluene, 1,1,2,2-tetrachloroethane, 1,1,1,2-tetrachloroethane, cyanide (total), barium, and chromium). A copy of the most recent full analysis of the injected wastewater is provided in Appendix 8-2.

The acetone (F003) waste originates from the QC laboratory, where there is also dilute isopropanol included in the waste stream. The waste stream does not exhibit the characteristic of ignitability.

Historically, the normal injected waste stream consists of less than 1% HCl with an average pH of between 1.0 - 2.0. Occasionally, a quantity of unsalable by-product hydrochloric acid is injected on an intermittent basis. This stream is injected when production variations or unit downtime creates acid production difficulties, or in rare instances, where acid production could exceed sales resulting in constrained storage capacity. This by-product acid is normally up to and including full strength (32% HCl) and must be diluted before injection, due to permit concentration limitations of 5.5% HCl. The full strength by-product waste acid stream is diluted to approximately 4.0% HCl by weight prior to injection into the disposal wells.

Physical parameters of the waste, as measured over a representative period of 1 year, are presented in Table 8-1. Table 8-2 includes the results of 1 year of monitoring data for total organic carbon, total organic halides, and total phenolics. The data indicate the relatively consistent nature of the injected waste stream at the Cabot facility over time. This analytical data was excerpted from monthly injection reports previously submitted by Cabot to the IEPA.

Most recently, on June 1, 2010, the USEPA granted Cabot an exemption to continue injection of a waste stream with a pH < 2.0 (D002), acetone (F003), and multi-source

leachate (F039) as described in the current permit. The current permitted concentration for these and other constituents are listed in Table 8-3.

In the future, Cabot intends to continue waste minimization efforts by increasing opportunities to recycle acid wastewater back into the process. As a result, the pH of the wastewater will at times be higher than historical levels, as the more acidic waste streams are reused for acid production. At times, Cabot expects that the pH could approach levels typical of the initial process water, cooling tower blowdown, and steam used in the production processes. The typical pH of the mentioned water ranges between 8 and 9. Therefore, Cabot is requesting with this renewal application that the pH limit be increased to 9 to allow these waste reduction activities to continue.

In addition to the pH limit, Cabot is requesting that the temperature limit on the injected waste be raised. For specific reasons, including those mentioned above, Cabot is requesting that the temperature limit for injection be increased to 120° F. In the past, the 95° F limit has put constraints on summer time operation, even though the integrity of the well is not at risk. As part of the future waste reduction efforts, Cabot expects that some of the non-hazardous warmer temperature waters, including those mentioned above, will have a greater influence on the overall waste stream temperature.

The fiberglass injection tubing installed in each well has an operational temperature rating -60° F to +210° F. The calculated tubing elongation due to the injection of 120° F waste is approximately 24 inches. The injection tubing "No-Gos" were positioned in both wells to allow for more than 24 inches of elongation before encountering the respective Hastelloy polished bore receptacle (PBR) in each well. The "No-Go" in Well No. 2 is set approximately 3 feet above the PBR while the "No-Go" in Well No. 3 is set approximately 7 feet above the PBR.

The maximum force from the tubing elongation if the seal assembly did not move within the PBR is approximately 15,465 pounds. This amount of set down force on the bottom joint of tubing should not damage the fiberglass injection tubing. The evaluation of each well's materials of construction and operational forces has shown the requested temperature of 120° F is appropriate for the wells at the Cabot facility.