



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR - 9 2017

REPLY TO THE ATTENTION OF:
C-14J

Ms. Erica Durr, Clerk of the Board
Environmental Appeals Board
U.S. Environmental Protection Agency
1201 Constitution Avenue, NW
WJC East Building, Room 3334
Washington, DC 20004

Re: **Filing of EPA Response to Appeal: In re: Archer Daniels Midland Company
UIC Appeal 17-05**

Dear Ms. Durr:

Please find enclosed for filing, in the docket of the above-referenced case, the following:

- EPA Statement Under 40 CFR Section 124.16 (a)(2)(ii)
- Certified Index of the Administrative Record
- EPA Response to Appeal of Permit Modification (including Table of Contents, Table of Authorities, Table of Attachments and Statement of Compliance with Word Limitation).

Thank you for your attention to this matter. If you have any questions, please contact me at (312) 886-6663 or by email to daugavietis.andre@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Andre Daugavietis", with a large, stylized flourish underneath.

Andre Daugavietis
Associate Regional Counsel
U.S. EPA, Region 5
77 W. Jackson Blvd (C-14J)
Chicago, IL 60604
Tel. (312) 886-6663
Email: daugavietis.andre@epa.gov

Enclosure

cc: Jeffrey Sprague, Petitioner
Steve Murawski, counsel for Permittee ADM

**BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

In re:)
)
Archer Daniels Midland Company)
Decatur, Illinois)
Well CCS#2)
)
Underground Injection Control)
Permit No.: IL-115-6A-0001)
)

UIC Appeal No. 17-05

EPA Statement Under 40 CFR Section 124.16 (a)(2)(ii)

The U. S. Environmental Protection Agency, Region 5 (“EPA” or “Region”), hereby provides its notification under 40 CFR §124.16 (a)(2)(ii) in this matter. The Petition for Review in this matter, filed with the Board on February 7, 2017 (“Petition”), did not question or contest any particular conditions of the UIC permit modification issued by EPA on January 19, 2017 (“modification”). Without specifically identifying any conditions of the Permit modification, the Petition objects to EPA’s: 1) discretionary decision not to extend the public comment period on the draft modification to allow time for Petitioner to audit the supporting modeling; (2) determination that consultation on the modification was not required with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act; (3) determination that Illinois property law issues related to ownership of subsurface pore space are not properly part of this UIC permit; and (4) determination that EPA cannot provide access to proprietary modeling software which

Petitioner requested so that he could reconstruct the modeling done by the applicant and EPA for the draft modification.

Since the Petition did not identify any “contested permit conditions” of the modification pursuant to 40 CFR §124.19(a)(4), EPA has considered the terms of, and supporting information for, the modification of permit IL-115-6A-0001 under appeal, the claims of the Petition on the modification and the comments underlying those claims, EPA’s responses to those comments, and the administrative record and has identified “the uncontested (and severable) conditions of the final permit modification that will become fully effective enforceable obligations” during the pendency of the Board’s review of the claims at issue, as required by 40 CFR §124.16 (a)(2)(ii).

Based on the review described above, EPA has determined that the modifications to the “Area of Review,” as determined by the computational modeling results (as depicted in Figure 7 of Attachment B, the Area of Review and Corrective Action Plan, and as incorporated into Section G of the modification) encompass the only portion of the modification subject to stay, and that the remaining provisions of the modification are substantially unaffected by the appeal. In addition, EPA has determined that a stay of this scope would not prejudice the Petitioner’s ability to ultimately obtain appropriate relief if review is granted by the Board. Any foreseeable relief potentially granted would not affect near term injection because the effects of such injection will not reach areas beyond the Area of Review previously approved by EPA in the 2014 permit. While the stay remains in place, the permittee will be prohibited from proceeding with injection that would result in effects outside the 2014 Area of Review. EPA has determined that the remaining provisions of the modification are uncontested and severable. Accordingly, 30

days from the date of this notice, pursuant to 40 CFR §124.16 (a)(2)(i), the remaining conditions of the modification will become “fully effective enforceable obligations” during the pendency of the Board’s review of the claims at issue.

EPA also re-affirms that, while the appeal of the modification is pending, as set forth in 40 CFR §124.16 (c)(2), the permittee must “to the extent conditions of any new permit are stayed under this section, comply with the conditions of the existing permit which correspond to the stayed conditions.”¹ Accordingly, the remaining terms of UIC permit IL-115-6A-0001, issued on December 1, 2014, and modified on January 19, 2017, remain in effect, and nothing in the appeal of the Permit modification alters the permittee’s rights and obligations in that permit relating to construction and operation of this Class VI well.

Respectfully submitted,



3-7-17

Stephen M. Jann, Chief
Underground Injection Control Branch

¹ EPA finds that compliance with the existing conditions would not be technologically incompatible with compliance with other conditions of the modified permit, whether or not they would have been stayed. See 40 CFR §124.16 (c)(2).

Memo to the Record: Severability and Stayed Provisions in Permit IL-115-6A-0001

March 6, 2017

In a filing with the Environmental Appeals Board the Director of the Water Division (EPA Region 5) has identified the AoR boundary in Figure 7 of Attachment B of the Area of Review and Corrective Action Plan of the 2017 permit modification as being a permit condition that should be stayed during the appeal of the permit modification (EAB appeal UIC 17-05). Therefore, it is stayed pursuant to 40 CFR 124.16. This AoR boundary is severable from all other provisions of the 2017 permit modification, which shall therefore become fully effective 30 days after the date of the notification required in paragraph 40 CFR 124.16(a)(2)(ii). This finding is based on a review of the 2017 permit modification in light of the Petition for Review, and is summarized below.

Section G.1 of the 2017 permit modification incorporates the AoR boundary depicted in Figure 7 of Attachment B, otherwise known as the Area of Review and Corrective Action Plan. While the appeal is under consideration by the EAB, the AoR boundary in Figure 7 of Attachment B of the Area of Review and Corrective Action Plan of the 2014 permit will remain the governing condition (and AoR boundary) for purposes of Section G.1 of the permit and injection at CCS #2. This will limit the duration and/or volume of injection in a manner protective of underground sources of drinking water (USDWs) and consistent with the governing regulations and permit conditions including the uncontested conditions of the 2017 permit modification. The Region finds that this will be fully protective of USDWs.

**BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

In re:)	
)	
Archer Daniels Midland Company)	UIC Appeal No. 17-05
Decatur, Illinois)	
Well CCS#2)	
)	
Underground Injection Control)	
Permit No.: IL-115-6A-0001)	
)	

Certified Index of the Administrative Record

Attached, on behalf of the U. S. Environmental Protection Agency, Region 5, is the Certified Index of the Administrative Record for the Modification to Permit No. IL-115-6A-0001 issued by the Region to Archer Daniels Midland on January 19, 2017, pursuant to the Underground Injection Control Program under Part C of the Safe Drinking Water Act, 42 U.S.C. §§ 300h *et seq.*

Index to the Administrative Record, Final Decision
Archer Daniels Midland Company Permit #IL-115-6A-0001

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
I. Draft Permit Administrative Record (40 CFR 124.18(b))						
a. Supporting Documentation Supplied by Permit Applicant (40 CFR 124.9(b)(1))						
1	9/14/2015	9/14/2015	16:16	PRE-INJECTION--TESTING--PLAN--&--MIT--SCHEDULE--Ver01.xlsx (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
2	9/14/2015	9/14/2015	16:16	CCS2-Open--Hole--Geophysical--Logging--Report.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
3	9/14/2015	9/14/2015	16:16	CCS2_Open_hole_Logs_LAS_PEX_data.zip (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
4	9/14/2015	9/14/2015	16:16	CCS2_Open_hole_Logs_PEX_FieldPrint.zip (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
5	9/14/2015	9/14/2015	16:16	CCS2_IBC_CEMENT_EVAL_REPORT_INTERMEDIATE_STRING_FINAL.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
6	9/14/2015	9/14/2015	16:16	CCS2_IBC_CEMENT_EVAL_PRINT_SCALE_1TO240_INTERMEDIATE_STRING_FINAL.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
7	9/14/2015	9/14/2015	16:16	CCS2_IBC_CEMENT_EVAL_REPORT_LONG_STRING_FINAL.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
8	9/14/2015	9/14/2015	16:16	CCS2_IBC_CEMENT_EVAL_PRINT_SCALE_1TO240_INJECTION_STRING_FINAL.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
9	9/16/2015	9/16/2015	17:18	CCS--2--LS--Casing--Pressure--Test--Report--20150706.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
10	9/16/2015	9/16/2015	17:18	CCS--2--Casing--Pressure--Test--Data.xlsx (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
11	9/16/2015	9/16/2015	17:18	CCS--2--Annular--MIT--07252015_ADM.xlsx (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
12	9/16/2015	9/16/2015	17:18	CCS--2--SAPT--Report--with--Appendix--20150725.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
13	9/16/2015	9/16/2015	17:30	2015--Labotka--etal--MS--IG--brines.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
14	9/16/2015	9/16/2015	17:30	CCS--2--Injection--Zone--Reservoir--Fluid--Testing--Certification--and--Report.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
15	9/16/2015	9/16/2015	17:30	Locke--et--al_2013--EgyPro.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
16	9/16/2015	9/16/2015	17:53	EOWR-ADM-CCS-2--Report.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
17	9/16/2015	9/16/2015	17:53	EOWR-ADM-CCS-2--Report--Supporting--Data.zip (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
18	9/16/2015	9/16/2015	17:53	VW2_012USHC-P081_SS_Kr--Report.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
19	9/16/2015	9/16/2015	17:53	VW2_TR13-404322_Geomechanical--Report.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
20	9/16/2015	9/16/2015	18:05	CCS-2--Sidewall--Core--Catalog.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
21	9/16/2015	9/16/2015	18:05	Leclercq_et_al-2014-Greenhouse_Gases_Science_and_Technology.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
22	9/16/2015	9/16/2015	18:05	Freiburg_et_al--GHGT-11--Mineralogical--alterations--during--laboratory--scale--carbon--experiments.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
23	9/16/2015	9/16/2015	18:12	ADM--Decatur--Site--Well--Core--Inventory--CCS.xlsx (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
24	9/17/2015	9/17/2015	16:57	CCS2--Completion--Diagram.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
25	9/17/2015	9/17/2015	16:57	Freiburg_et_al--Characterization--of--the--Mt.--Simon.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
26	9/17/2015	9/17/2015	16:57	CCS-2--Static--Fluid--Level--Report.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
27	9/18/2015	9/18/2015	10:54	Geophysical--Log--Descriptive--Report--CCS--1.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
28	9/18/2015	9/18/2015	10:54	Hydrogeologic--Information--CCS--1.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
29	9/18/2015	9/18/2015	10:54	Freiburg_et_al--Characterization--of--the--Mt.--Simon.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
30	9/18/2015	9/18/2015	10:54	ADM--Well--Cross--Sections--Lithology--Logging-- (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
31	9/18/2015	9/18/2015	10:54	ADM-Company_CCS-2_Falloff_11-Jul-2015_Final.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
32	9/18/2015	9/18/2015	10:54	Long--Term--Injection--Test--PFO--Spinner.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
33	9/18/2015	9/18/2015	10:54	Step--Rate--Test--Analysis--CCS--2--final.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA

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34	9/18/2015	9/18/2015	10:54	CSS--2--Production--Logging--Report--with--Logs.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
35	9/18/2015	9/18/2015	10:54	CCS2--Pressure--Test--Data--Tables--and--Spinner--LAS--Files.zip (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
36	9/25/2015	9/25/2015	16:40	Palkovic_2015_Characterization--of--the--Eau--Claire.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
37	10/2/2015	10/2/2015	17:23	CCS--2--SAPT--Report--with--Appendix--20150929.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
38	10/2/2015	10/2/2015	17:23	CCS--2--Annular--MIT--09292015_ADM.xlsx (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
39	10/15/2015	10/15/2015	9:40	adm-ccs2-draft-permit-201404.pdf (Project Information module)	McDonald, Scott	U.S. EPA
40	10/15/2015	10/15/2015	9:40	ICCS-CCS2--Test--Results--Modeling--and--AOR--Implications.pdf (Project Information module)	McDonald, Scott	U.S. EPA
41	10/15/2015	10/15/2015	9:44	DCV8-00008_CS-ADM_CCS2_SLB-RUN5_TEMPPRES_REVISBD_FINAL_PRINT.Pdf (Project Information)	McDonald, Scott	U.S. EPA
42	10/15/2015	10/15/2015	9:44	CCS2--Temperature--Log--Report--2015-10-13--.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
43	12/3/2015	12/3/2015	12:21	Mechanical--Integrity--Report--Production--Casing----PMT--10-Jun-2015-lmg.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
44	12/3/2015	12/3/2015	12:21	Mechanical--Integrity--Report----PNX--30-Sep-2015-lmg.pdf	McDonald, Scott	U.S. EPA
45	12/11/2015	12/11/2015	17:54	eclipse-2014--description.pdf (Area of Review and Corrective Action Module)	McDonald, Scott	U.S. EPA
46	12/11/2015	12/11/2015	17:54	ICCS_EPA_2015_GRID.zipx (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
47	12/11/2015	12/11/2015	17:54	Grid--Description.pptx (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
48	12/11/2015	12/11/2015	17:54	Eclipse300--CO2--Store--Computation--References.docx (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
49	12/11/2015	12/11/2015	17:54	ICCS_EPA_2015_Porosity.zipx (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
50	12/11/2015	12/11/2015	17:54	Model--Porosity--Determination.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
51	12/11/2015	12/11/2015	17:54	PORO_CrossSections.png (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA

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52	12/11/2015	12/11/2015	17:54	ICCS_EPA_2015_Permeability.zipx (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
53	12/11/2015	12/11/2015	17:54	Model--Permeability--Determination.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
54	12/11/2015	12/11/2015	17:54	PERMX_CrossSections.png (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
55	12/11/2015	12/11/2015	17:54	EPA_2015_SATNUM_IMBNUM_3L_HETERO.zipx (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
56	12/11/2015	12/11/2015	17:54	ICCS_EPA_2015_Water_SatFunctions.txt (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
57	12/11/2015	12/11/2015	17:54	ICCS_EPA_2015_Gas_SatandPeFunctions.txt (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
58	12/11/2015	12/11/2015	17:54	ADM_F13_BASE_SH_MULTPV.zipx (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
59	12/11/2015	12/11/2015	17:54	ICCS_EPA_2015_INITIAL_PRESSURE.zipx (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
60	12/11/2015	12/11/2015	17:54	ADM_CCS--1--Cross--Section--Perfs.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
61	12/11/2015	12/11/2015	17:54	Step--Rate--Test--Analysis--CCS--1.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
62	12/11/2015	12/11/2015	17:54	ADM_CCS--2--Cross--Section--Perfs.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
63	12/11/2015	12/11/2015	17:54	Step--Rate--Test--Analysis--CCS--2--final.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
64	12/11/2015	12/11/2015	17:54	2015_Update_ADM_TimeSeries_112815.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
65	12/11/2015	12/11/2015	17:54	2015_Update_ADM_Extent--of--Plume--with--Crossection_120115.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
66	12/11/2015	12/11/2015	17:54	Reservoir--Fluid--Flux--into--the--Base--of--the--Eau--Claire.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
67	12/11/2015	12/11/2015	17:54	AoR--Over--Pressure--Calculation.xlsx (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
68	12/11/2015	12/11/2015	17:54	ICCS_EPA_2015_AoR.zipx (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
69	12/17/2015	12/17/2015	18:01	CCS_2-01-071406.zip (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
70	12/18/2015	12/18/2015	13:52	ADM-Company_CCS-2_Falloff_11-Jul-2015_Final--Corrected--Units.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA

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71	12/18/2015	12/18/2015	13:52	CCS2--Pressure--Falloff--Test--Data--20160205--Corrected--Units.xlsx (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
72	12/18/2015	12/18/2015	13:52	Long--Term--Injection--Test--PFO--Spinner--Final--Corrected--Units.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
73	12/18/2015	12/18/2015	13:52	Step--Rate--Test--Analysis--CCS--2--Final--Corrected--Units.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
74	1/25/2016	1/25/2016	18:30	20160125--Request--for--Reporting--Extension.pdf (Project Information module)	McDonald, Scott	U.S. EPA
75	2/4/2016	2/4/2016	14:04	20151215--AoR--Sensitivity--Results.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
76	2/4/2016	2/4/2016	14:04	20151215--Sensitivity--Analysis.xlsx (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
77	2/9/2016	2/9/2016	7:11	Preinjection--Testing--Plan--20160523.docx (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
78	2/9/2016	2/9/2016	7:11	Groundwater--Compliance--Report--20160223.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
79	2/16/2016	2/16/2016	16:19	CCS2--Bottom--Hole--Pressure--Plot.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
80	2/16/2016	2/16/2016	16:19	AoRModeling/CO2--Trapping--Plot.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
81	2/16/2016	2/16/2016	16:19	CCS2--PressureTop--Injection--Interval.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
82	2/16/2016	2/16/2016	16:19	Mass--Partitioning--Data--Files.txt (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
83	2/16/2016	2/16/2016	16:19	CCS--2--High--Resolution--Plume--and--Pressure--Plot.pdf (AoR and Corrective Action Module)	McDonald, Scott	U.S. EPA
84	2/16/2016	2/16/2016	16:25	RAI--I-2I-16--Letter--and--Enclosure.pdf (Information Request module)	McDonald, Scott	U.S. EPA
85	2/16/2016	2/16/2016	16:25	RAI-01212016.xlsx (Information Request module)	McDonald, Scott	U.S. EPA
86	2/20/2016	2/20/2016	13:37	Test.docx (Injection and Post-Injection Phase Reporting module)	McDonald, Scott	U.S. EPA
87	2/20/2016	2/20/2016	13:37	Test1.docx (Injection and Post-Injection Phase Reporting module)	McDonald, Scott	U.S. EPA
88	2/20/2016	2/20/2016	13:37	20160224_ADM_R05-IL-0003_Semi-Annual_Report.pdf (Injection and Post-Injection Phase Reporting module)	McDonald, Scott	U.S. EPA
89	2/20/2016	2/20/2016	13:37	ADM--PNX--MIT--Logs--and--Reports.zip (Injection and Post-Injection Phase Reporting module)	McDonald, Scott	U.S. EPA

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
90	3/3/2016	3/3/2016	18:20	ICCS-CCS2--Pressure--Falloff--Data-20160205.xlsx (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
91	3/3/2016	3/3/2016	18:20	ICCS-CCS2--Step--Rate--Test-20160205.xlsx (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA
92	3/7/2016	3/7/2016	9:45	Financial--Assurance--2016--Update--FINAL.pdf (Injection and Post-Injection Phase Reporting module)	McDonald, Scott	U.S. EPA
93	3/7/2016	3/7/2016	9:45	Financial--Assurance--2016--Update.xlsx (Injection and Post-Injection Phase Reporting module)	McDonald, Scott	U.S. EPA
94	5/24/2016	5/24/2016	11:17	CCS2 RAI 3-14-16.pdf (Information Request module)	McDonald, Scott	U.S. EPA
95	5/24/2016	5/24/2016	11:17	RAI--2--Complete--Ver05.pdf (Information Request module)	McDonald, Scott	U.S. EPA
96	5/24/2016	5/24/2016	11:17	RAI--2--ADM--EPA--Supporting--Emails.pdf (Information Request module)	McDonald, Scott	U.S. EPA
97	5/24/2016	5/24/2016	11:17	CCS2 RAI3 4-4-16.pdf (Information Request module)	McDonald, Scott	U.S. EPA
98	5/24/2016	5/24/2016	15:15	Image--File--for--Porosity--Distribution--20160523.pdf (AoR and Corrective Action module)	McDonald, Scott	U.S. EPA
99	5/24/2016	5/24/2016	15:15	Dispersion--and--Diffusion--Sensitivity--Analysis.pdf (AoR and Corrective Action module)	McDonald, Scott	U.S. EPA
100	5/24/2016	5/24/2016	15:15	Image--File--for--Permeability--Distribution--20160523.pdf (AoR and Corrective Action module)	McDonald, Scott	U.S. EPA
101	5/24/2016	5/24/2016	15:15	Porosity--Determination--and--Assignment--to--Numerical--Model--20160523.pdf (AoR and Corrective Action module)	McDonald, Scott	U.S. EPA
102	5/24/2016	5/24/2016	15:15	Permeability--Determination--and--Assignment--to--Numerical--Model--20160523.pdf (AoR and Corrective Action module)	McDonald, Scott	U.S. EPA
103	5/24/2016	5/24/2016	15:15	AOR--Sensitivity--Analysis--20160523.pdf (AoR and Corrective Action module)	McDonald, Scott	U.S. EPA
104	5/24/2016	5/24/2016	15:15	AOR--Sensitivity--Analysis--Data--File--20160523.xlsx (AoR and Corrective Action module)	McDonald, Scott	U.S. EPA
105	5/24/2016	5/24/2016	15:15	AoR--Pressure--Front--Delineation--20160523.pdf (AoR and Corrective Action module)	McDonald, Scott	U.S. EPA
106	5/24/2016	5/24/2016	15:15	ADM_Extent--of--Plume--with--Cross-section--20160523.pdf (AoR and Corrective Action module)	McDonald, Scott	U.S. EPA
107	5/24/2016	5/24/2016	15:15	AoR--Delineation--Wellbore--Data--20160523.zip (AoR and Corrective Action module)	McDonald, Scott	U.S. EPA
108	5/24/2016	5/24/2016	16:46	Mechanical--Integrity--Report--PNX--30-Sep-2015-Img.pdf (Pre-Injection Testing module)	McDonald, Scott	U.S. EPA

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
109	6/1/2016	6/1/2016	10:18	RAI-3--Complete--w--attachments--Ver01.pdf (Information Request module)	McDonald, Scott	U.S. EPA
110	9/8/2016	9/8/2016	11:41	SLB--20160901-RAI-4-Memorandum--to--ADM.pdf (Information Request module)	McDonald, Scott	U.S. EPA
111	9/13/2016	9/13/2016	13:44	ISGS--20160913-RAI--4-CCS2--Step--Rate--Falloff--Tests--Report.pdf (Information Request module)	McDonald, Scott	U.S. EPA
112	9/26/2016	9/26/2016	11:26	ADM--CCS2--2--Startup--and--Monitoring--Procedure--v4.pdf (Information Request module)	McDonald, Scott	U.S. EPA
113	9/26/2016	9/26/2016	11:32	CCS--2--AoR--Corrective--Action--w--attachment--092616.pdf (AoR and Corrective Action module)	McDonald, Scott	U.S. EPA
114	10/6/2016	10/6/2016	9:20	ADM--CCS2--Pre-Operation---Att-D Att-G.zip	McDonald, Scott	U.S. EPA
115	10/10/2016	10/10/2016	13:52	ADM--CCS2--Pre-Operation----Att-F---ERR--Plan--ADM--Reviewed.docx (Information Request module)	McDonald, Scott	U.S. EPA
116	10/20/2016	10/20/2016	15:22	P081_SCS_VW2_WCRCAISummaryReport.pdf (Pre-injection Testing module)	McDonald, Scott	U.S. EPA
117	10/21/2016	10/21/2016	13:47	ADM--CCS2--Pre-Operation---Att-B---AoR--and--CA--Plan ADM Reviewed.docx	McDonald, Scott	U.S. EPA
118	10/21/2016	10/21/2016	14:27	ADM--CCS2--Pre-Operation----QASP_ADM--Reviewed.docx (Information Request module)	McDonald, Scott	U.S. EPA
119	10/21/2016	10/21/2016	14:27	QASP--Appendices.pdf (Information Request module)	McDonald, Scott	U.S. EPA
120	10/24/2016	10/24/2016	8:10	ADM--CCS2--Pre-Operation---QASP_ADM--Reviewed.docx (Information Request module)	McDonald, Scott	U.S. EPA
121	10/25/2016	10/25/2016	9:56	ADM--CCS2--Pre-Operation---Att-H---Financial--Responsibility--CFO--Letter.pdf (Information Request module)	McDonald, Scott	U.S. EPA
122	10/25/2016	10/25/2016	9:56	ADM--2015--Annual--Report.pdf (Information Request module)	McDonald, Scott	U.S. EPA
124	10/28/2016	10/28/2016	14:26	ADM--2015--Annual--Report.pdf and 1610-2104366--2016--AUP_10.27.16--Secure--.pdf (Information Request module)	McDonald, Scott	U.S. EPA

b. Draft Permit or Notice of Intent to Deny the Application or Terminate the Permit (40 CFR 124.9(b)(2))

125	11/7/2016	N/A	N/A	U.S. EPA, Underground Injection Control Permit, Class VI, IL-115-6A-0001, CCS#2	U.S. EPA	ADM
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c. Statement of Basis or Fact Sheet (40 CFR 124.9(b)(3))

126	10/28/2016	N/A	N/A	EPA Seeks Comments on Plan to Modify an Existing Carbon Storage Permit	U.S. EPA	N/A
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Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
d. All Documents Cited in the Statement of Basis or Fact Sheet (40 CFR 124.9(b)(4))						
127	N/A	N/A	N/A	Safe Drinking Water Act and Regulations at 40 C.F.R. 124, 144, and 146 (publically available online) http://www.ecfr.gov	N/A	N/A

e. Other Documents Contained in the Supporting File for the Draft Permit (40 CFR 124.9(b)(5))						
128	10/22/2014	10/28/2014	N/A	RE: Final Permit Notice of Review for the Archer Daniels Midland Company Well; USEPA Permit Number IL-115-6A-001	Dean Frommelt, ADM	Tinka Hyde, EPA
129	12/1/2014	N/A	N/A	Environmental Appeals Board Decision on Petition for Review, UIC Appeal No. 14-72; Authorization to Construct the CCS#2 Well Located in Macon County, Illinois; U.S. Environmental Protection Agency Permit Number IL-115-6A-0001	Tinka Hyde, EPA	Dean Frommelt, ADM
130	12/2/2014	12/2/2014	9:36	ADM CCS#2 Permit	Andrew Greenhagen, EPA	Scott McDonald, ADM
131	2/10/2015	2/10/2015	15:33	FW: CCS2 plans	Scott McDonald, ADM	Andrew Greenhagen, EPA
132	2/11/2015	2/11/2015	14:55	ADM CCS#2 Logging and Testing Forecast.	Scott McDonald, ADM	Andrew Greenhagen, EPA
133	2/12/2015	2/12/2015	9:39	CCS#2 Completion Report	Scott McDonald, ADM	Andrew Greenhagen, EPA
134	2/12/2015	2/12/2015	10:05	RE: ADM CCS#2 Logging and Testing Forecast.	Andrew Greenhagen, EPA	Scott McDonald, ADM
135	2/12/2015	2/12/2015	10:32	RE: ADM CCS#2 Logging and Testing Forecast.	Scott McDonald, ADM	Andrew Greenhagen, EPA
136	2/12/2015	2/12/2015	13:25	RE: CCS#2 Completion Report	Andrew Greenhagen, EPA	Scott McDonald, ADM
137	2/12/2015	2/12/2015	14:20	RE: CCS#2 Completion Report	Andrew Greenhagen, EPA	Scott McDonald, ADM
138	2/24/2015	2/24/2015	13:25	RE: CCS#2 Completion Report	Andrew Greenhagen, EPA	Scott McDonald, ADM
139	2/25/2015	2/25/2015	8:53	RE: CCS#2 Completion Report	Scott McDonald, ADM	Andrew Greenhagen, EPA
140	3/10/2015	3/10/2015	13:26	ES Agreement for GS	Scott McDonald, ADM	Andrew Greenhagen, EPA
141	3/11/2015	3/11/2015	16:05	RE: ES Agreement for GS	Andrew Greenhagen, EPA	Scott McDonald, ADM
142	3/11/2015	3/11/2015	16:09	RE: ADM CCS#2 Logging and Testing Forecast.	Andrew Greenhagen, EPA	Scott McDonald, ADM
143	3/12/2015	3/12/2015	8:59	FW: ES Agreement for GS	Scott McDonald, ADM	Andrew Greenhagen, EPA
144	3/12/2015	3/12/2015	9:06	RE: ADM CCS#2 Logging and Testing Forecast.	Scott McDonald, ADM	Andrew Greenhagen, EPA
145	3/12/2015	3/12/2015	11:27	Annual FA Submittal for UIC Class VI Permit	Scott McDonald, ADM	Andrew Greenhagen, EPA
146	3/12/2015	3/12/2015	14:42	RE: Annual FA Submittal for UIC Class VI Permit	Andrew Greenhagen, EPA	Scott McDonald, ADM
147	3/12/2015	3/12/2015	17:08	RE: ES Agreement for GS	Andrew Greenhagen, EPA	Scott McDonald, ADM
148	3/13/2015	3/13/2015	9:09	RE: ES Agreement for GS	Scott McDonald, ADM	Andrew Greenhagen, EPA
149	3/13/2015	3/13/2015	15:16	RE: ES Agreement for GS	Andrew Greenhagen, EPA	Scott McDonald, ADM
150	3/16/2015	3/16/2015	8:30	ESA and GM#2 Well Design	Scott McDonald, ADM	Andrew Greenhagen, EPA
151	3/16/2015	3/16/2015	9:42	RE: ESA and GM#2 Well Design	Andrew Greenhagen, EPA	Scott McDonald, ADM
152	3/16/2015	3/16/2015	12:34	CCS#2 Annulus Pressure System	Scott McDonald, ADM	Andrew Greenhagen, EPA
153	3/16/2015	3/16/2015	17:41	CCS#2 Revised Well Design (Side-Track)	Scott McDonald, ADM	Andrew Greenhagen, EPA
154	3/17/2015	3/17/2015	10:29	New Drilling Plan CCS#2	Scott McDonald, ADM	Andrew Greenhagen, EPA

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
155	3/18/2015	3/18/2015	15:13	RE: New Drilling Plan CCS#2	Andrew Greenhagen, EPA	Scott McDonald, ADM
156	3/18/2015	3/18/2015	N/A	Revised Drilling Plan for CCS #2, U.S. Environmental Protection Agency Permit Number IL-115-6A-0001	Stephen Jann, EPA	Scott McDonald, ADM
157	3/19/2015	3/19/2015	15:23	RE: ESA and GM#2 Well Design	Andrew Greenhagen, EPA	Scott McDonald, ADM
158	3/20/2015	3/20/2015	9:16	GM#2 Well Design Alternatives	Scott McDonald, ADM	Andrew Greenhagen, EPA
159	3/20/2015	3/20/2015	9:34	RE: GM#2 Well Design Alternatives	Andrew Greenhagen, EPA	Scott McDonald, ADM
160	3/23/2015	3/23/2015	9:18	RE: GM#2 Well Design Alternatives	Scott McDonald, ADM	Andrew Greenhagen, EPA
161	3/23/2015	3/23/2015	11:15	RE: GM#2 Well Design Alternatives	Andrew Greenhagen, EPA	Scott McDonald, ADM
162	3/23/2015	3/23/2015	12:10	RE: GM#2 Well Design Alternatives	Scott McDonald, ADM	Andrew Greenhagen, EPA
163	3/24/2015	3/24/2015	9:26	Call today?	Andrew Greenhagen, EPA	Scott McDonald, ADM
164	3/24/2015	3/24/2015	12:06	FW: Your letter was refused/returned again.	Scott McDonald, ADM	Andrew Greenhagen, EPA
165	3/24/2015	3/24/2015	13:00	RE: Your letter was refused/returned again.	Andrew Greenhagen, EPA	Scott McDonald, ADM
166	3/27/2015	3/27/2015	10:44	ESA	Andrew Greenhagen, EPA	Scott McDonald, ADM
167	3/30/2015	3/30/2015	9:19	Financial Assurance Report for State Reporting	Scott McDonald, ADM	Andrew Greenhagen, EPA
168	3/30/2015	3/30/2015	9:37	RE: Financial Assurance Report for State Reporting	Andrew Greenhagen, EPA	Scott McDonald, ADM
169	3/30/2015	3/30/2015	11:44	FW: Financial Assurance - State Reporting	Scott McDonald, ADM	Andrew Greenhagen, EPA
170	5/19/2015	5/19/2015	14:22	CCS#1 Annulus Pressure	Scott McDonald, ADM	Andrew Greenhagen, EPA
171	6/5/2015	6/5/2015	11:09	Final Permit Documents in MS Word Format	Scott McDonald, ADM	Andrew Greenhagen, EPA
172	6/25/2015	6/25/2015	16:42	UIC VI Permit and CCS#2 Core Acquisition	Scott McDonald, ADM	Andrew Greenhagen, EPA
173	6/29/2015	6/29/2015	8:23	ADM UIC Permit IL-115-6A-0001 - VW#1 Maintenance Notification	Scott McDonald, ADM	Andrew Greenhagen, EPA
174	6/26/2015	7/6/2015	N/A	ADM Decatur UIC Permit Verification Well Out-of-service Monitoring Notification	Steven Merritt, ADM	Andrew Greenhagen, EPA
175	7/21/2015	7/21/2015	10:56	RE: ADM UIC Permit IL-115-6A-0001 - VW#1 Maintenance Notification	Andrew Greenhagen, EPA	Scott McDonald, ADM
176	7/22/2015	7/22/2015	8:19	RE: ADM UIC Permit IL-115-6A-0001 - VW#1 Maintenance Notification	Scott McDonald, ADM	Andrew Greenhagen, EPA
177	7/22/2015	7/22/2015	9:46	RE: ADM UIC Permit IL-115-6A-0001 - VW#1 Maintenance Notification	Andrew Greenhagen, EPA	Scott McDonald, ADM
178	7/22/2015	7/22/2015	14:21	RE: ADM UIC Permit IL-115-6A-0001 - VW#1 Maintenance Notification	Scott McDonald, ADM	Andrew Greenhagen, EPA
179	7/22/2015	7/22/2015	16:20	RE: ADM UIC Permit IL-115-6A-0001 - VW#1 Maintenance Notification	Andrew Greenhagen, EPA	Scott McDonald, ADM
180	7/23/2015	7/23/2015	9:14	RE: ADM UIC Permit IL-115-6A-0001 - VW#1 Maintenance Notification	Scott McDonald, ADM	Andrew Greenhagen, EPA
181	7/23/2015	7/23/2015	15:29	RE: ADM UIC Permit IL-115-6A-0001 - VW#1 Maintenance Notification	Andrew Greenhagen, EPA	Scott McDonald, ADM
182	7/24/2015	7/24/2015	9:15	RE: ADM UIC Permit IL-115-6A-0001 - VW#1 Maintenance Notification	Andrew Greenhagen, EPA	Scott McDonald, ADM

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
183	7/24/2015	7/24/2015	9:55	RE: ADM UIC Permit IL-115-6A-0001 - VW#1 Maintenance Notification	Scott McDonald, ADM	Andrew Greenhagen, EPA
184	7/29/2015	7/29/2015	9:38	Updated user guide for Project Information Tracking Module	Andrew Greenhagen, EPA	Scott McDonald, ADM
185	8/6/2015	8/6/2015	9:42	Pressure Test Certification	Scott McDonald, ADM	Andrew Greenhagen, EPA
186	8/6/2015	8/6/2015	10:58	RE: Pressure Test Certification	Andrew Greenhagen, EPA	Scott McDonald, ADM
187	8/6/2015	8/6/2015	11:31	RE: Pressure Test Certification	Scott McDonald, ADM	Andrew Greenhagen, EPA
188	8/6/2015	8/6/2015	11:40	RE: Pressure Test Certification	Andrew Greenhagen, EPA	Scott McDonald, ADM
189	8/6/2015	8/6/2015	12:08	Pressure Test Certification	Scott McDonald, ADM	Andrew Greenhagen, EPA
190	8/6/2015	8/6/2015	13:12	Password Failure	Scott McDonald, ADM	Andrew Greenhagen, EPA
191	8/6/2015	8/6/2015	14:10	RE: Password Failure	Andrew Greenhagen, EPA	Scott McDonald, ADM
192	8/6/2015	8/6/2015	14:37	RE: Pressure Test Certification	Andrew Greenhagen, EPA	Scott McDonald, ADM
193	8/7/2015	8/7/2015	15:51	Well deviation Survey	Scott McDonald, ADM	Andrew Greenhagen, EPA
194	8/7/2015	8/7/2015	16:10	CCS#2 Well Deviation Surveys	Scott McDonald, ADM	Andrew Greenhagen, EPA
195	8/18/2015	8/18/2015	9:17	RE: Pressure Test Certification	Andrew Greenhagen, EPA	Scott McDonald, ADM
196	8/20/2015	8/20/2015	7:30	MIT Schedule	Scott McDonald, ADM	Andrew Greenhagen, EPA
197	8/26/2015	8/26/2015	10:17	Injection Test Report	Scott McDonald, ADM	Andrew Greenhagen, EPA
198	8/26/2015	8/26/2015	10:40	RE: Injection Test Report	Andrew Greenhagen, EPA	Scott McDonald, ADM
199	8/26/2015	8/26/2015	17:13	Meeting about CCS#2 Well Testing	Scott McDonald, ADM	Andrew Greenhagen, EPA
200	8/27/2015	8/27/2015	9:46	CCS#1 Permit	Scott McDonald, ADM	Andrew Greenhagen, EPA
201	8/27/2015	8/27/2015	10:56	RE: Meeting about CCS#2 Well Testing	Andrew Greenhagen, EPA	Scott McDonald, ADM
202	8/27/2015	8/27/2015	12:53	RE: Meeting about CCS#2 Well Testing	Scott McDonald, ADM	Andrew Greenhagen, EPA
203	8/28/2015	8/28/2015	9:29	Alarm Tests	Andrew Greenhagen, EPA	Scott McDonald, ADM
204	8/28/2015	8/28/2015	13:29	RE: Alarm Tests	Scott McDonald, ADM	Andrew Greenhagen, EPA
205	8/31/2015	8/31/2015	9:03	RE: ADM Call	Scott McDonald, ADM	Andrew Greenhagen, EPA
206	8/31/2015	8/31/2015	14:13	GS Data Tool Access	Andrew Greenhagen, EPA	Scott McDonald, ADM
207	9/4/2015	9/4/2015	17:10	CCS2 MIT Procedures	Andrew Greenhagen, EPA	Scott McDonald, ADM
208	9/9/2015	9/9/2015	8:24	RST Logging Procedure	Scott McDonald, ADM	Andrew Greenhagen, EPA
209	9/10/2015	9/10/2015	14:29	Testing report	Scott McDonald, ADM	Andrew Greenhagen, EPA
210	9/10/2015	9/10/2015	16:52	Pre-Injection Testing Requirements	Scott McDonald, ADM	Andrew Greenhagen, EPA
211	9/14/2015	9/14/2015	15:20	FW: EPA Class VI UIC Submission: Pre-Injection Testing Submissions	Scott McDonald, ADM	Andrew Greenhagen, EPA
212	9/16/2015	9/16/2015	14:59	Log Procedure Example	Andrew Greenhagen, EPA	Scott McDonald, ADM
213	9/18/2015	9/18/2015	15:38	RE: EPA Class VI UIC Submission: Pre-Injection Testing Submissions	Andrew Greenhagen, EPA	Scott McDonald, ADM
214	9/21/2015	9/21/2015	9:05	RE: Pre-Injection Testing Requirements	Andrew Greenhagen, EPA	Scott McDonald, ADM
215	9/21/2015	9/21/2015	14:08	RE: CCS#1 Permit	Andrew Greenhagen, EPA	Scott McDonald, ADM
216	9/22/2015	9/22/2015	8:36	FW: RST Logging Procedure.docx	Scott McDonald, ADM	Andrew Greenhagen, EPA
217	9/22/2015	9/22/2015	10:05	EPA Site Visit Testing Schedule	Scott McDonald, ADM	Andrew Greenhagen, EPA

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
218	9/22/2015	9/22/2015	11:12	FW: Pre-Injection Testing Requirements - Static Fluid Height	Scott McDonald, ADM	Andrew Greenhagen, EPA
219	9/23/2015	9/23/2015	16:34	RE: RST Logging Procedure.docx	Andrew Greenhagen, EPA	Scott McDonald, ADM
220	9/24/2015	9/24/2015	10:10	RE: RST Logging Procedure.docx	Scott McDonald, ADM	Andrew Greenhagen, EPA
221	9/24/2015	9/24/2015	10:43	RE: RST Logging Procedure.docx	John Medler, Schlumberger	Andrew Greenhagen, EPA
222	9/24/2015	9/24/2015	11:23	CO2 injection in CCS1	Andrew Greenhagen, EPA	Scott McDonald, ADM
223	9/25/2015	9/25/2015	11:29	RE: Pre-Injection Testing Requirements - Static Fluid Height	Andrew Greenhagen, EPA	Scott McDonald, ADM
224	9/25/2015	9/25/2015	13:14	RE: Pre-Injection Testing Requirements - Static Fluid Height	Scott McDonald, ADM	Andrew Greenhagen, EPA
225	9/25/2015	9/25/2015	16:33	RE: Pre-Injection Testing Requirements - Static Fluid Height	Andrew Greenhagen, EPA	Scott McDonald, ADM
226	9/28/2015	9/28/2015	9:45	RE: Pre-Injection Testing Requirements - Static Fluid Height	Scott McDonald, ADM	Andrew Greenhagen, EPA
227	9/28/2015	9/28/2015	10:13	RE: Pre-Injection Testing Requirements - Static Fluid Height	Andrew Greenhagen, EPA	Scott McDonald, ADM
228	9/28/2015	9/28/2015	10:30	Pre-Injection Testing September 29-30, 2015	Scott McDonald, ADM	Andrew Greenhagen, EPA
229	9/28/2015	9/28/2015	10:32	RE: Pre-Injection Testing Requirements - Static Fluid Height	Scott McDonald, ADM	Andrew Greenhagen, EPA
230	9/28/2015	9/28/2015	14:02	RE: Pre-Injection Testing Requirements - Static Fluid Height	Andrew Greenhagen, EPA	Scott McDonald, ADM
231	10/5/2015	10/5/2015	13:56	Two additional submittals	Scott McDonald, ADM	Andrew Greenhagen, EPA
232	10/8/2015	10/8/2015	10:23	FW: CO2 injection in CCS1	Andrew Greenhagen, EPA	Scott McDonald, ADM
233	10/8/2015	10/8/2015	10:27	RE: Two additional submittals	Andrew Greenhagen, EPA	Scott McDonald, ADM
234	10/8/2015	10/8/2015	11:22	RE: CO2 injection in CCS1	Mark Atkinson, ADM	Andrew Greenhagen, EPA
235	10/8/2015	10/8/2015	11:25	RE: CO2 injection in CCS1	Andrew Greenhagen, EPA	Mark Atkinson, ADM
236	10/9/2015	10/9/2015	15:54	Data Tool Instructions	Andrew Greenhagen, EPA	Scott McDonald, ADM
237	10/14/2015	10/14/2015	17:24	RE: Data Tool Instructions	Scott McDonald, ADM	Andrew Greenhagen, EPA
238	10/15/2015	10/15/2015	9:20	RE: Data Tool Instructions	Andrew Greenhagen, EPA	Scott McDonald, ADM
239	10/28/2015	N/A	N/A	Request for Additional Information Regarding Archer Daniels Midland (ADM) Well CCS#2, United States Environmental Protection Agency Underground Injection Control (UIC) Permit #IL-115-6A-0001	Stephen Jann, EPA	Scott McDonald, ADM
240	10/28/2015	10/28/2015	16:42	Additional Information Request	Scott McDonald, ADM	Andrew Greenhagen, EPA
241	10/30/2015	N/A	N/A	Permit Compliance Evaluation Inspection of CCS#2, Decatur, Illinois; U.S. Environmental Protection Agency Permit Number IL-115-6A-0001	Stephen Jann, EPA	Scott McDonald, ADM
242	10/30/2015	10/30/2015	12:18	Call	Andrew Greenhagen, EPA	Scott McDonald, ADM

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
243	10/30/2015	10/30/2015	15:41	RE: Call	Scott McDonald, ADM	Andrew Greenhagen, EPA
244	11/2/2015	11/2/2015	2:12	RE: Call	Scott McDonald, ADM	Andrew Greenhagen, EPA
245	11/3/2015	11/3/2015	8:24	RE: FW: Call on ADM Modeling RAI	John Medler, Schlumberger	Andrew Greenhagen, EPA
246	11/3/2015	11/3/2015	8:26	RE: FW: Call on ADM Modeling RAI	John Medler, Schlumberger	Andrew Greenhagen, EPA
247	11/3/2015	11/3/2015	8:59	RE: Call on ADM Modeling RAI	Scott McDonald, ADM	Andrew Greenhagen, EPA
248	11/4/2015	11/4/2015	15:18	ADM remodeling follow-up	Andrew Greenhagen, EPA	Scott McDonald, ADM
249	11/4/2015	11/4/2015	15:33	RE: ADM remodeling follow-up	Bob Will, Schlumberger	Andrew Greenhagen, EPA
250	11/5/2015	11/5/2015	21:26	Rock Types and Properties	Bob Will, Schlumberger	Andrew Greenhagen, EPA
251	11/10/2015	11/10/2015	14:42	Over Pressure Calculation	Scott McDonald, ADM	Andrew Greenhagen, EPA
252	11/18/2015	11/18/2015	10:06	RE: Over Pressure Calculation	Andrew Greenhagen, EPA	Scott McDonald, ADM
253	11/18/2015	11/18/2015	9:53	FW: PNX report	Scott McDonald, ADM	Andrew Greenhagen, EPA
254	11/20/2015	11/20/2015	10:29	File Upload	Andrew Greenhagen, EPA	Scott McDonald, ADM
255	11/23/2015	11/23/2015	10:45	RE: Over Pressure Calculation	Andrew Greenhagen, EPA	Scott McDonald, ADM
256	11/23/2015	11/23/2015	11:09	RE: File Upload	Scott McDonald, ADM	Andrew Greenhagen, EPA
257	11/23/2015	11/23/2015	12:58	Allowable Pressure Increase	Scott McDonald, ADM	Andrew Greenhagen, EPA
258	11/24/2015	11/24/2015	11:12	EPA Website	Scott McDonald, ADM	Andrew Greenhagen, EPA
259	11/24/2015	11/24/2015	16:19	RE: EPA Website	Andrew Greenhagen, EPA	Scott McDonald, ADM
260	11/24/2015	11/24/2015	16:47	ISGS Tests the GW samples for dissolved CO2	Scott McDonald, ADM	Andrew Greenhagen, EPA
261	11/30/2015	11/30/2015	14:52	RE: PNX report	Andrew Greenhagen, EPA	Scott McDonald, ADM
262	12/3/2015	12/3/2015	13:51	RE: PNX report	Scott McDonald, ADM	Andrew Greenhagen, EPA
263	12/3/2015	12/3/2015	15:17	VW2 Sampling Plan	Scott McDonald, ADM	Andrew Greenhagen, EPA
264	12/4/2015	12/4/2015	10:42	RE: PNX report	Andrew Greenhagen, EPA	Scott McDonald, ADM
265	12/4/2015	12/4/2015	15:06	RE: PNX report	Scott McDonald, ADM	Andrew Greenhagen, EPA
266	12/4/2015	12/4/2015	15:24	RE: PNX report	Andrew Greenhagen, EPA	Scott McDonald, ADM
267	12/9/2015	12/9/2015	11:55	ADM EPA File Uploads	Scott McDonald, ADM	Andrew Greenhagen, EPA
268	12/9/2015	12/9/2015	13:55	RE: ADM EPA File Uploads	Andrew Greenhagen, EPA	Scott McDonald, ADM
269	12/10/2015	12/10/2015	9:52	ADM CCS1 Permit	Andrew Greenhagen, EPA	Scott McDonald, ADM
270	12/10/2015	12/10/2015	9:58	FW: ADM CCS1 Permit	Andrew Greenhagen, EPA	Scott McDonald, ADM
271	12/10/2015	12/10/2015	10:00	FW: ADM CCS1 Permit	Andrew Greenhagen, EPA	Scott McDonald, ADM
272	12/10/2015	12/10/2015	10:01	FW: ADM CCS1 Permit	Andrew Greenhagen, EPA	Scott McDonald, ADM
273	12/10/2015	12/10/2015	10:24	RE: ADM CCS1 Permit	Scott McDonald, ADM	Andrew Greenhagen, EPA
274	12/10/2015	12/10/2015	11:08	RE: ADM EPA File Uploads	Scott McDonald, ADM	Andrew Greenhagen, EPA
275	12/10/2015	12/10/2015	11:23	FW: ADM CCS1 Permit	Andrew Greenhagen, EPA	Scott McDonald, ADM
276	12/10/2015	12/10/2015	11:30	FW: ADM CCS1 Permit	Andrew Greenhagen, EPA	Scott McDonald, ADM
277	12/10/2015	12/10/2015	12:02	RE: ADM EPA File Uploads	Andrew Greenhagen, EPA	Scott McDonald, ADM
278	12/10/2015	12/10/2015	12:10	RE: ADM CCS1 Permit	Scott McDonald, ADM	Andrew Greenhagen, EPA
279	12/10/2015	12/10/2015	13:11	RE: ADM CCS1 Permit	Andrew Greenhagen, EPA	Scott McDonald, ADM

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
280	12/10/2015	12/10/2015	13:33	RE: ADM CCS1 Permit	Andrew Greenhagen, EPA	Scott McDonald, ADM
281	12/18/2015	12/18/2015	10:52	CCS#2 Well Log Data	Andrew Greenhagen, EPA	Scott McDonald, ADM
282	12/18/2015	12/18/2015	12:35	RE: CCS#2 Well Log Data	Scott McDonald, ADM	Andrew Greenhagen, EPA
283	12/18/2015	12/18/2015	12:53	RE: CCS#2 Well Log Data	Scott McDonald, ADM	Andrew Greenhagen, EPA
284	12/28/2015	12/28/2015	12:24	Santa Left me 3,000 tons of CO2	Scott McDonald, ADM	Andrew Greenhagen, EPA
285	12/30/2015	12/30/2015	15:39	RE: CCS#2 Well Log Data	Scott McDonald, ADM	Andrew Greenhagen, EPA
286	12/30/2015	12/30/2015	15:42	RE: CCS#2 Well Log Data	Scott McDonald, ADM	Andrew Greenhagen, EPA
287	12/30/2015	12/30/2015	13:42	RE: CCS#2 Well Log Data	Andrew Greenhagen, EPA	Scott McDonald, ADM
288	12/30/2015	12/30/2015	16:49	RE: CCS#2 Well Log Data	Andrew Greenhagen, EPA	Scott McDonald, ADM
289	12/31/2015	12/31/2015	9:10	RE: CCS#2 Well Log Data	Scott McDonald, ADM	Andrew Greenhagen, EPA
290	12/31/2015	12/31/2015	9:12	RE: CCS#2 Well Log Data	Scott McDonald, ADM	Andrew Greenhagen, EPA
291	12/31/2015	12/31/2015	10:06	RE: CCS#2 Well Log Data	Andrew Greenhagen, EPA	Scott McDonald, ADM
292	12/31/2015	12/31/2015	10:08	RE: Santa Left me 3,000 tons of CO2	Andrew Greenhagen, EPA	Scott McDonald, ADM
293	12/31/2015	12/31/2015	10:12	RE: CCS#2 Well Log Data	Andrew Greenhagen, EPA	Scott McDonald, ADM
294	12/31/2015	12/31/2015	10:46	Velo User Account	Scott McDonald, ADM	Andrew Greenhagen, EPA
295	12/31/2015	12/31/2015	11:41	RE: Velo User Account	Andrew Greenhagen, EPA	Scott McDonald, ADM
296	12/31/2015	12/31/2015	12:43	RE: Velo User Account	Scott McDonald, ADM	Andrew Greenhagen, EPA
297	1/4/2016	1/4/2016	8:44	RE: Velo User Account	Andrew Greenhagen, EPA	Scott McDonald, ADM
298	1/5/2016	1/5/2016	16:08	Sensitivity Analysis	Scott McDonald, ADM	Andrew Greenhagen, EPA
299	1/7/2016	1/7/2016	8:37	RE: Sensitivity Analysis	Andrew Greenhagen, EPA	Scott McDonald, ADM
300	1/7/2016	1/7/2016	10:56	RE: Sensitivity Analysis	Scott McDonald, ADM	Andrew Greenhagen, EPA
301	1/8/2016	1/8/2016	11:12	RE: Sensitivity Analysis	Andrew Greenhagen, EPA	Scott McDonald, ADM
302	1/12/2016	1/12/2016	15:18	RE: Sensitivity Analysis	Scott McDonald, ADM	Andrew Greenhagen, EPA
303	1/13/2016	1/13/2016	9:13	RE: Sensitivity Analysis	Andrew Greenhagen, EPA	Scott McDonald, ADM
304	1/13/2016	1/13/2016	10:43	RE: Sensitivity Analysis	Scott McDonald, ADM	Andrew Greenhagen, EPA
305	1/13/2016	1/13/2016	10:55	RE: Sensitivity Analysis	Andrew Greenhagen, EPA	Scott McDonald, ADM
306	1/21/2016	N/A	N/A	Request for Additional Information Regarding Archer Daniels Midland (ADM) Well CCS#2, United States Environmental Protection Agency Underground Injection Control (UIC) Permit #IL-115-6A-0001	Stephen Jann, EPA	Scott McDonald, ADM
307	1/21/2016	1/21/2016	16:35	Information Request	Andrew Greenhagen, EPA	Scott McDonald, ADM
308	1/25/2016	1/25/2016	10:16	ADM CCS#1 Reporting	Andrew Greenhagen, EPA	Scott McDonald, ADM
309	1/25/2016	1/25/2016	10:25	RE: ADM CCS#1 Reporting	Scott McDonald, ADM	Andrew Greenhagen, EPA
310	1/25/2016	1/25/2016	17:06	Request for Extension UIC Class VI Permit No. IL-115-6A-0002	Scott McDonald, ADM	Stephen Jann, EPA
311	1/26/2016	1/26/2016	15:48	RE: ADM CCS#1 Reporting	Andrew Greenhagen, EPA	Scott McDonald, ADM
312	1/26/2016	1/26/2016	16:46	RE: ADM CCS#1 Reporting	Scott McDonald, ADM	Andrew Greenhagen, EPA
313	1/28/2016	1/28/2016	9:40	RE: ADM CCS#1 Reporting	Andrew Greenhagen, EPA	Scott McDonald, ADM
314	1/28/2016	1/28/2016	9:41	RE: ADM CCS#1 Reporting	Scott McDonald, ADM	Andrew Greenhagen, EPA

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
315	2/1/2016	2/1/2016	14:53	EPA Requests	Andrew Greenhagen, EPA	Scott McDonald, ADM
316	2/2/2016	2/2/2016	8:55	RE: EPA Requests	Scott McDonald, ADM	Andrew Greenhagen, EPA
317	2/4/2016	2/4/2016	7:40	RE: EPA Requests	Scott McDonald, ADM	Andrew Greenhagen, EPA
318	2/4/2016	2/4/2016	8:33	RE: EPA Requests	Andrew Greenhagen, EPA	Scott McDonald, ADM
319	2/4/2016	2/4/2016	8:37	RE: EPA Requests	Scott McDonald, ADM	Andrew Greenhagen, EPA
320	2/17/2016	2/17/2016	7:12	Call Today	Scott McDonald, ADM	Andrew Greenhagen, EPA
321	2/17/2016	2/17/2016	8:12	RE: Call Today	Andrew Greenhagen, EPA	Scott McDonald, ADM
322	2/18/2016	2/18/2016	11:15	RAI: F-2 Response Distance between CCS#1 and CCS#2	Scott McDonald, ADM	Andrew Greenhagen, EPA
323	2/18/2016	2/18/2016	13:14	RE: F-2 Response Distance between CCS#1 and CCS#2	Andrew Greenhagen, EPA	Scott McDonald, ADM
324	2/18/2016	2/18/2016	15:25	FW: CO2 Phase 2 EPA Bi-Annual Reporting Requirement Page	Scott McDonald, ADM	Andrew Greenhagen, EPA
325	2/18/2016	2/18/2016	15:31	CO2 Phase 2 EPA Page	Scott McDonald, ADM	Andrew Greenhagen, EPA
326	2/18/2016	2/18/2016	16:36	RE: CO2 Phase 2 EPA Page	Andrew Greenhagen, EPA	Scott McDonald, ADM
327	2/19/2016	2/19/2016	8:24	RE: CO2 Phase 2 EPA Page	Scott McDonald, ADM	Andrew Greenhagen, EPA
328	2/19/2016	2/19/2016	9:01	RE: CO2 Phase 2 EPA Page	Andrew Greenhagen, EPA	Scott McDonald, ADM
329	2/19/2016	2/19/2016	9:49	RE: CO2 Phase 2 EPA Page	Scott McDonald, ADM	Andrew Greenhagen, EPA
330	2/19/2016	2/19/2016	15:49	RE: ADM CCS#1 Reporting	Scott McDonald, ADM	Andrew Greenhagen, EPA
331	2/19/2016	2/19/2016	16:07	RE: ADM CCS#1 Reporting	Andrew Greenhagen, EPA	Scott McDonald, ADM
332	2/19/2016	2/19/2016	16:11	RE: ADM CCS#1 Reporting	Scott McDonald, ADM	Andrew Greenhagen, EPA
333	2/23/2016	2/23/2016	9:43	FW: EPA Class VI UIC Submission: Injection and Post-Injection Phase Reporting	Dean Frommelt, ADM	Andrew Greenhagen, EPA
334	2/23/2016	2/23/2016	10:23	RE: EPA Class VI UIC Submission: Injection and Post-Injection Phase Reporting	Andrew Greenhagen, EPA	Dean Frommelt, ADM
335	2/23/2016	2/23/2016	10:25	RE: [EXTERNAL] RE: EPA Class VI UIC Submission: Injection and Post-Injection Phase Reporting	Dean Frommelt, ADM	Andrew Greenhagen, EPA
336	2/23/2016	2/23/2016	16:42	ADM CCS#2 Fall-Off Test	Andrew Greenhagen, EPA	Scott McDonald, ADM
337	2/29/2016	2/29/2016	12:42	Velo Error Message	Scott McDonald, ADM	Andrew Greenhagen, EPA
338	2/29/2016	2/29/2016	16:22	Password reset for CCS#1 (R05-IL-0003)	Matt Colombo, EPA	Scott McDonald, ADM
339	2/29/2016	2/29/2016	16:23	FW: ADM CCS#1 Reporting	Andrew Greenhagen, EPA	Scott McDonald, ADM
340	2/29/2016	2/29/2016	16:30	RE: [EXTERNAL] FW: ADM CCS#1 Reporting	Scott McDonald, ADM	Andrew Greenhagen, EPA
341	2/29/2016	2/29/2016	16:35	RE: [EXTERNAL] Password reset for CCS#1 (R05-IL-0003)	Scott McDonald, ADM	Matt Colombo, EPA
342	3/1/2016	3/1/2016	7:35	RE: [EXTERNAL] FW: ADM CCS#1 Reporting	Andrew Greenhagen, EPA	Scott McDonald, ADM
343	3/1/2016	3/1/2016	9:50	FW: [EXTERNAL] FW: ADM CCS#1 Reporting	Scott McDonald, ADM	Andrew Greenhagen, EPA
344	3/1/2016	3/1/2016	10:30	RE: [EXTERNAL] FW: ADM CCS#1 Reporting	Andrew Greenhagen, EPA	Scott McDonald, ADM
345	3/1/2016	3/1/2016	10:50	RE: [EXTERNAL] FW: ADM CCS#1 Reporting	Scott McDonald, ADM	Andrew Greenhagen, EPA
346	3/1/2016	3/1/2016	12:39	Authorization Agreement	Scott McDonald, ADM	Matt Colombo, EPA
347	3/1/2016	3/1/2016	13:28	RE: [EXTERNAL] ADM CCS#2 Fall-Off Test	Scott McDonald, ADM	Andrew Greenhagen, EPA
348	3/1/2016	3/1/2016	13:56	RE: Authorization Agreement	Matt Colombo, EPA	Scott McDonald, ADM

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
349	3/1/2016	3/1/2016	14:02	RE: [EXTERNAL] FW: ADM CCS#1 Reporting	Andrew Greenhagen, EPA	Scott McDonald, ADM
350	3/1/2016	3/1/2016	14:33	RE: [EXTERNAL] FW: ADM CCS#1 Reporting	Scott McDonald, ADM	Andrew Greenhagen, EPA
351	3/1/2016	3/2/2016	8:50	RE: Authorization Agreement	Matt Colombo, EPA	Scott McDonald, ADM
352	3/2/2016	3/2/2016	9:38	RE: [EXTERNAL] ADM CCS#2 Fall-Off Test	Scott McDonald, ADM	Andrew Greenhagen, EPA
353	3/2/2016	3/2/2016	10:33	FW: CCS Mention by DOE Secretary	Scott McDonald, ADM	Andrew Greenhagen, EPA
354	3/2/2016	3/2/2016	14:52	RE: Authorization Agreement	Andrew Greenhagen, EPA	Scott McDonald, ADM
355	3/9/2016	3/9/2016	9:53	We've received your ESA	Matt Colombo, EPA	Mark Atkinson, ADM
356	3/9/2016	3/9/2016	10:37	RE: We've received your ESA	Matt Colombo, EPA	Mark Atkinson, ADM
357	3/14/2016	N/A	N/A	Request for Additional Information Regarding Archer Daniels Midland (ADM) Well CCS#2, United States Environmental Protection Agency Underground Injection Control (UIC) Permit #IL-115-6A-0001	Stephen Jann, EPA	Scott McDonald, ADM
358	3/24/2016	3/24/2016	11:50	ADM Sensitivity Analysis	Scott McDonald, ADM	Andrew Greenhagen, EPA
359	3/25/2016	3/25/2016	7:40	RE: ADM Sensitivity Analysis	Andrew Greenhagen, EPA	Scott McDonald, ADM
360	3/25/2016	3/25/2016	10:53	ADM Sensitivity Analysis - Response	Scott McDonald, ADM	Andrew Greenhagen, EPA
361	3/28/2016	3/28/2016	11:17	RE: ADM Sensitivity Analysis - Response	Andrew Greenhagen, EPA	Scott McDonald, ADM
362	3/28/2016	3/28/2016	16:43	FW: [EXTERNAL] Sensitivity Test Outputs	Scott McDonald, ADM	Andrew Greenhagen, EPA
363	3/29/2016	3/29/2016	8:02	RE: ADM Sensitivity Analysis - Response	Scott McDonald, ADM	Andrew Greenhagen, EPA
364	3/29/2016	3/29/2016	8:13	RE: [EXTERNAL] Sensitivity Test Outputs	Andrew Greenhagen, EPA	Scott McDonald, ADM
365	3/31/2016	3/31/2016	11:14	Data Tool Module Map	Andrew Greenhagen, EPA	Scott McDonald, ADM
366	3/31/2016	3/31/2016	12:51	VELO Site	Scott McDonald, ADM	Andrew Greenhagen, EPA
367	3/31/2016	3/31/2016	13:32	RE: VELO Site	Andrew Greenhagen, EPA	Scott McDonald, ADM
368	4/1/2016	N/A	N/A	Request for Additional Information Regarding Archer Daniels Midland (ADM) Well CCS#2, United States Environmental Protection Agency Underground Injection Control (UIC) Permit #IL-115-6A-0001	Stephen Jann, EPA	Scott McDonald, ADM
369	4/4/2016	4/4/2016	13:56	AoR Delineation	Scott McDonald, ADM	Andrew Greenhagen, EPA
370	5/2/2016	5/2/2016	11:13	EPA Additional Information Requests	Andrew Greenhagen, EPA	Scott McDonald, ADM
371	5/2/2016	5/2/2016	11:42	RE: [EXTERNAL] EPA Additional Information Requests	Scott McDonald, ADM	Andrew Greenhagen, EPA
372	5/2/2016	5/2/2016	11:57	RE: [EXTERNAL] EPA Additional Information Requests	Andrew Greenhagen, EPA	Scott McDonald, ADM
373	5/17/2016	5/17/2016	17:34	RAI #2	Scott McDonald, ADM	Andrew Greenhagen, EPA
374	5/19/2016	5/19/2016	17:16	RE: RAI #2	Andrew Greenhagen, EPA	Scott McDonald, ADM
375	5/20/2016	5/20/2016	10:53	RE: [EXTERNAL] RE: RAI #2	Scott McDonald, ADM	Andrew Greenhagen, EPA
376	5/20/2016	5/20/2016	11:18	RE: [EXTERNAL] RE: RAI #2	Andrew Greenhagen, EPA	Scott McDonald, ADM
377	6/1/2016	6/1/2016	12:05	RAI #2 & #3	Scott McDonald, ADM	Andrew Greenhagen, EPA
378	7/12/2016	7/12/2016	13:05	CCS#1 Annual Reporting Requirements	Scott McDonald, ADM	Andrew Greenhagen, EPA
379	7/13/2016	7/13/2016	8:31	RE: CCS#1 Annual Reporting Requirements	Andrew Greenhagen, EPA	Scott McDonald, ADM
380	7/13/2016	7/13/2016	9:36	RE: [EXTERNAL] RE: CCS#1 Annual Reporting Requirements	Scott McDonald, ADM	Andrew Greenhagen, EPA

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
381	7/15/2016	7/15/2016	10:39	Agenda for EPA Call on July 25, 2016	Scott McDonald, ADM	Andrew Greenhagen, EPA
382	7/29/2016	7/29/2016	14:51	ADM-RAI4-7-29-016.pdf [Information Request module (permitting authority)]	U.S. EPA	ADM
383	8/5/2016	8/5/2016	14:41	FW: [EXTERNAL] RE: RAI #4	Scott McDonald, ADM	Andrew Greenhagen, EPA
384	8/5/2016	8/5/2016	14:56	RE: [EXTERNAL] RE: RAI #4	Andrew Greenhagen, EPA	Scott McDonald, ADM
385	8/5/2016	8/5/2016	15:02	RE: [EXTERNAL] RE: RAI #4	Nick Malkewicz, Schlumberger	Andrew Greenhagen, EPA
386	8/5/2016	8/5/2016	15:30	RE: [EXTERNAL] RE: RAI #4	Andrew Greenhagen, EPA	Scott McDonald, ADM
387	8/8/2016	8/8/2016	13:58	RE: [EXTERNAL] RE: RAI #4	Nick Malkewicz, Schlumberger	Andrew Greenhagen, EPA
388	8/15/2016	8/15/2016	17:23	Call tomorrow?	Andrew Greenhagen, EPA	Scott McDonald, ADM
389	8/17/2016	8/17/2016	10:45	RAI #4 - Assumptions	Scott McDonald, ADM	Andrew Greenhagen, EPA
390	8/17/2016	8/17/2016	10:59	RE: RAI #4 - Assumptions	Andrew Greenhagen, EPA	Scott McDonald, ADM
391	8/18/2016	8/18/2016	14:42	IMS System	Scott McDonald, ADM	Andrew Greenhagen, EPA
392	8/29/2016	8/29/2016	18:39	ADM Response to RAI	Andrew Greenhagen, EPA	Scott McDonald, ADM
393	9/6/2016	9/6/2016	8:42	RAI#4 Report from SLB	Scott McDonald, ADM	Andrew Greenhagen, EPA
394	9/13/2016	9/13/2016	12:17	ISGS Report - RAI#4	Scott McDonald, ADM	Andrew Greenhagen, EPA
395	9/22/2016	9/22/2016	12:44	CCS#2 Start-up procedure	Scott McDonald, ADM	Andrew Greenhagen, EPA
396	9/22/2016	9/22/2016	13:01	ADM Startup and Monitoring Procedure	Scott McDonald, ADM	Andrew Greenhagen, EPA
397	9/23/2016	9/23/2016	8:01	ADM CCS#2 Initial Startup Procedure	Scott McDonald, ADM	Andrew Greenhagen, EPA
398	9/26/2016	9/26/2016	11:02	AoR Corrective Action Update	Scott McDonald, ADM	Andrew Greenhagen, EPA
399	9/29/2016	9/29/2016	11:07	ADM-CCS2_Pre-Operation_AttDandG.zip [Information Request module (permitting authority)]	U.S. EPA	ADM
400	10/4/2016	10/4/2016	8:26	RE: EPA Class VI UIC Notification: Information Request	Andrew Greenhagen, EPA	Scott McDonald, ADM
401	10/4/2016	10/4/2016	10:14	RE: [EXTERNAL] RE: EPA Class VI UIC Notification: Information Request	Scott McDonald, ADM	Andrew Greenhagen, EPA
402	10/5/2016	10/5/2016	12:22	ADM Well Plans	Scott McDonald, ADM	Andrew Greenhagen, EPA
403	10/7/2016	10/7/2016	11:35	ADM-CCS2-Pre-Operation-Att-F-ERR-Plan.docx [Information Request module (permitting authority)]	U.S. EPA	ADM
404	10/10/2016	10/10/2016	14:13	EPA Submittal - RAI#6	Scott McDonald, ADM	Andrew Greenhagen, EPA
405	10/12/2016	10/12/2016	9:38	ADM-CCS2_Pre-Operation_AttCandE.zip [Information Request module (permitting authority)]	U.S. EPA	ADM
406	10/13/2016	10/13/2016	13:36	inforeq notifyADM-CCS2-Pre-Operation-Att-A-Summary-of-Requirements.docx [Information Request module (permitting authority)]	U.S. EPA	ADM
407	10/14/2016	10/14/2016	17:23	CCS2_RAI9_10-14-16.pdf [Information Request module (permitting authority)]	U.S. EPA	ADM

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
408	10/17/2016	10/17/2016	15:56	ADM-CCS2-Pre-Operation-Att-B-AoR-and-CA-Plan.docx [Information Request module (permitting authority)]	U.S. EPA	ADM
409	10/18/2016	10/18/2016	9:07	ADM-CCS2-Pre-Operation-Att-A-Summary-of-Requirements_ADM_Reviewed.docx [Information Request module (permitting authority)]	U.S. EPA	ADM
410	10/18/2016	10/18/2016	9:07	ADM-CCS2-Pre-Operation-Att-C-TM-Plan_ADM_Reviewed.docx [Information Request module (permitting authority)]	U.S. EPA	ADM
411	10/18/2016	10/18/2016	9:07	ADM-CCS2-Pre-Operation-Att-E-PISC-and-SC-Plan_ADM_Reviewed.docx [Information Request module (permitting authority)]	U.S. EPA	ADM
412	10/18/2016	10/18/2016	13:41	FR Table	Andrew Greenhagen, EPA	Scott McDonald, ADM
413	10/20/2016	10/20/2016	13:49	FW: Financial Responsibility	Scott McDonald, ADM	Andrew Greenhagen, EPA
414	10/21/2016	10/21/2016	13:44	RE: EPA Class VI UIC Submission: Information Request	Andrew Greenhagen, EPA	Scott McDonald, ADM
415	10/21/2016	10/21/2016	13:46	RE: EPA Class VI UIC Submission: Information Request	Andrew Greenhagen, EPA	Scott McDonald, ADM
416	10/24/2016	10/24/2016	8:59	FW: USEPA Audit follow up	Scott McDonald, ADM	Andrew Greenhagen, EPA
417	10/24/2016	10/24/2016	9:19	RE: USEPA Audit follow up	Andrew Greenhagen, EPA	Scott McDonald, ADM
418	10/24/2016	10/24/2016	10:22	RE: [EXTERNAL] RE: USEPA Audit follow up	Scott McDonald, ADM	Andrew Greenhagen, EPA
419	10/24/2016	10/24/2016	11:08	RE: [EXTERNAL] RE: USEPA Audit follow up	Andrew Greenhagen, EPA	Scott McDonald, ADM
420	10/25/2016	10/25/2016	8:33	FW: USEPA Audit follow up	Scott McDonald, ADM	Andrew Greenhagen, EPA
421	10/25/2016	10/25/2016	9:08	RE: USEPA Audit follow up	Scott McDonald, ADM	Andrew Greenhagen, EPA
422	10/25/2016	10/25/2016	9:09	RE: USEPA Audit follow up	Andrew Greenhagen, EPA	Scott McDonald, ADM
423	10/26/2016	N/A	N/A	MTF seismicity IL-115-6A-0001 Oct 2016	U.S. EPA	N/A
424	10/26/2016	N/A	N/A	MTF NHPA ESA IL-115-6A-0001 Oct 2016.docx	U.S. EPA	N/A
425	10/27/2016	10/27/2016	12:27	FW: [EXTERNAL] EPA Request	Scott McDonald, ADM	Andrew Greenhagen, EPA
426	10/27/2016	10/27/2016	17:16	RE: [EXTERNAL] EPA Request	Andrew Greenhagen, EPA	Scott McDonald, ADM
427	10/28/2016	10/28/2016	11:02	FW: ETA on the E&Y Letter	Scott McDonald, ADM	Andrew Greenhagen, EPA
428	10/28/2016	10/28/2016	11:12	RE: ETA on the E&Y Letter	Andrew Greenhagen, EPA	Scott McDonald, ADM
429	10/28/2016	10/28/2016	15:21	RE: [EXTERNAL] RE: ETA on the E&Y Letter	Scott McDonald, ADM	Andrew Greenhagen, EPA
430	10/28/2016	N/A	N/A	CCS2 Corrective Action Summary FINAL	U.S. EPA	N/A
431	10/28/2016	N/A	N/A	CCS2 Memo to the Record on Testing and Monitoring FINAL	U.S. EPA	N/A
432	10/28/2016	N/A	N/A	MTF ADM SRT and Fall-off analysis	U.S. EPA	N/A
433	10/28/2016	N/A	N/A	ADM CCS2 Memo to the Record - AoR	U.S. EPA	N/A
434	10/28/2016	N/A	N/A	Pre-Operation Phase Evaluation of ADM's Financial Responsibility Cost Estimates and Demonstration for CCS#2	U.S. EPA	N/A
435	N/A	N/A	N/A	ADM Induced Seismicity Evaluation Final.docx; 2014	N/A	N/A

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
436	N/A	N/A	N/A	AoR Wellbore Database 20160523.xls; 2016	N/A	N/A
437	N/A	N/A	N/A	Birkholzer, J.T, J.P. Nicot, C.M. Oldenburg, Q. Zhou, S. Kraemer, and K. Bandilla; Brine flow up a well caused by pressure perturbation from geologic carbon sequestration: Static and dynamic evaluations; International Journal of Greenhouse Gas Control (5); 2011	N/A	N/A
438	N/A	N/A	N/A	Bureau of Economic Analysis (BEA); 2015 Implicit Price Deflators for GDP; 2016	N/A	N/A
439	N/A	N/A	N/A	Evaluation of ADM's Financial Responsibility Cost Estimates for CCS#2 Well; 2014	N/A	N/A
440	N/A	N/A	N/A	Illinois Oil and Gas Resources (ILOIL); ILOIL Interactive Map; 2016	N/A	N/A
441	N/A	N/A	N/A	Illinois State Water Survey (ISWS); ISWS water database; 2016	N/A	N/A
442	N/A	N/A	N/A	Nicot, J.P., C.M. Oldenburg, S.L. Bryant, and S.D. Hovorka; Pressure perturbations from geologic carbon sequestration: Area-of-review boundaries and borehole leakage driving forces; Energy Procedia (1); 2009.	N/A	N/A
443	N/A	N/A	N/A	Pacific Northwest National Laboratory (PNNL); PNNL STOMP-CO2e User Guide; 2012	N/A	N/A
444	N/A	N/A	N/A	PNNL; Additional STOMP Documentation; 2015	N/A	N/A
445	N/A	N/A	N/A	Regulations at 40 C.F.R. 124, 144, and 146 (publically available online) http://www.ecfr.gov	N/A	N/A
446	N/A	N/A	N/A	Safe Drinking Water Act of 1974; 42 USC 300f	N/A	N/A

II. All Comments Received During the Public Comment Period (40 CFR 124.18(b)(1))

447	11/30/2016	11/30/2016	14:01	Minor Discrepancy in Attachment B (AoR)	Scott McDonald, ADM	Andrew Greenhagen, EPA
448	12/6/2016	12/6/2016	18:35	Public Comments - ADM Draft Modified Permit (IL-115-6A-0001) for CCS Well #2	Jeffrey Sprague	Andrew Greenhagen, EPA
449	12/13/2016	12/13/2016	22:55	Additional Public Comments - ADM Draft Modified Permit (IL-115-6A-0001) for CCS Well #2	Jeffrey Sprague	Andrew Greenhagen, EPA

III. Tape or Transcript of Public Hearings (40 CFR 124.18(b)(2))

450	12/13/2016	12/28/2016	N/A	Public Hearing Transcript	Advantage Reporting Service	U.S. EPA
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IV. Written Materials Submitted at Public Hearings (40 CFR 124.18(b)(3))

N/A				None Received		
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Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
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V. Response to Comments (40 CFR 124.18(b)(4))

a. Response to comments

451	1/4/2017	N/A	N/A	Response to Comments for Draft Modifications to U.S. EPA, Underground Injection Control Permit, Class VI, IL-115-6A-0001, CCS#2	Christopher Korleski, EPA	Commenters
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b. New records considered by the Agency in Developing response to comments

452	1/4/2017	N/A	N/A	Memo to the File Re: Naming of the Argenta Formation	Andrew Greenhagen, EPA	N/A
453	N/A	N/A	N/A	Espinoza, D. Nicolas and J. Carlos Santamarina; Clay interaction with liquid and supercritical CO2: The relevance of electrical and capillary forces; International Journal of Greenhouse Gas Control (10); 2012	N/A	N/A
454	N/A	N/A	N/A	Freiburg, Jared T., Robert W. Ritzl, and Kelsey S. Kehoe; Depositional and diagenetic controls on anomalously high porosity within a deeply buried CO2 storage reservoir - The Cambrian Mt. Simon Sandstone, Illinois Basin, USA; International Journal of Greenhouse Gas Control (55); 2016	N/A	N/A

VI. Other Records in the Supporting File for the Permit (40 CFR 124.18(b)(6))

455	11/7/2016	N/A	N/A	Re: Draft Major-modified Underground Injection Control Permit #IL-115-6A-0001	Christopher Korleski, EPA	Scott McDonald, ADM
456	11/9/2016	N/A	N/A	Draft Permit Repository	Lisa Perenchio, EPA	Joann Stanbery, Decatur Library
457	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Andree DuVarney, NRCS
458	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Mark Plank, Rural Utilities Service
459	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	John Furry, Civil Works Policy
460	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Joe Carbone, Forest Service
461	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Matt Mangan, Fish & Wildlife Service

Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
462	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Jarrad Kosa, Fish & Wildlife Service
463	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Reid Nelson, Office of Federal Agency Programs
464	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Jeff Wright, FERC Office of Energy Projects
465	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Charles Walthall, USDA
466	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Willie Taylor, Department of Interior
467	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	LaMar Hasbrouck, IL Dept of Public Health
468	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Marthea Rountree, EPA
469	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Chuck Ingersoll, IL Dept of Transportation
470	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Karen Miller, IL Dept of Natural Resources
471	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Steve Nightingale, IL EPA
472	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	David Bloomberg, IL EPA
473	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Robert Flider, IL Dept of Agriculture
474	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Jonathan Feipel, IL Commerce Commission

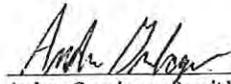
Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
475	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Amy Martin, IL Historic Preservation Agency
476	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Todd Rettig, IL Dept of Natural Resources
477	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	IL Dept of Commerce & Economic Opportunity
478	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	IL Dept of Natural Resources, Division of Oil and Gas
479	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Arland Juhl, IL Dept of Natural Resources
480	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Marc Miller, IL Dept of Natural Resources
481	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Lisa Bonnett, IL EPA
482	11/9/2016	N/A	N/A	Public Notice and Public Comment Period for Underground Injection Control Permit Modification in Decatur, Illinois	Lisa Perenchio, EPA	Adam Pollet, IL Dept of Commerce and Economic Opportunity
483	11/10/2016	N/A	N/A	Certificate of Service - transmittal of Public Notice via U.S. Mail	Jeffrey Wawczak and Andrew Greenhagen, EPA	Numerous Parties
484	11/10/2016	11/15/2016	N/A	Decatur Herald & Review Certificate of Public Notice Publication on 11/9/2016	Decatur Herald & Review	U.S. EPA
485	11/11/2016	11/18/2016	N/A	Decatur Herald & Review Certificate of Public Notice Publication on 11/10/2016	Decatur Herald & Review	U.S. EPA
486	12/1/2016	12/5/2016	N/A	IL Dept of Natural Resources Office of Mines and Minerals, Land Reclamation Division Letter	Scott Fowler, IDNR	Andrew Greenhagen, EPA
487	12/13/2016	12/20/2016	N/A	IL Historic Preservation Agency Letter	Rachel Leibowitz, IHPA	Lisa Perenchio, EPA

VII. Final Permit (40 CFR 124.18(b)(7))

488	1/19/2017	N/A	N/A	U.S. EPA, Underground Injection Control Permit, Class VI, IL-115-6A-0001, CCS#2	Christopher Korleski, EPA	Scott McDonald, ADM
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Doc	Date of doc	Date received	Time	Title/Description/Subject	Author/sender	Addressee
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I, Andrew Greenhagen, the permit writer for U.S. EPA permit # IL-115-6A-0001, ADM CCS#2, certify, to the best of my knowledge, that the administrative record for this final permit decision is complete on 1-19-17. The administrative record for this final permit decision includes, to the best of my knowledge, the documents that form the basis for the final permit decision, as required by 40 CFR 124.18. The above Administrative Record Index references the documents in the administrative record for this final permit decision.



Andrew Greenhagen, Permit Writer,
Underground Injection Control Branch, U.S. EPA Region 5

1-19-17
Date

**BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

In re:)
)
Archer Daniels Midland Company)
Decatur, Illinois)
Facility CCS#2)
)
Underground Injection Control)
Permit No.: IL-115-6A-0001)
_____)

UIC Appeal No. 17-05

EPA RESPONSE TO APPEAL OF PERMIT MODIFICATION

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<i>In re Sutter Power Plant,</i> 8 E.A.D. 680 (EAB 1999).....	5
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Attachment 1: Response to Comments Dated January 19, 2017 for Draft Modified Class VI Permit Issued to Archer Daniels Midland (ADM), Permit No. IL-115-6A-0001

Attachment 2: Petition for Review, *In Re Archer Daniels Midland Co.*, Decatur, Illinois, CCS #2, UIC Appeal No. 17-05 (Feb. 2, 2017)

Attachment 3: Evaluation of NHPA and ESA at ADM's CCS #2

Attachment 4: Software User Agreement, S.T.O.M.P. (Subsurface Transport Over Multiple Phases)

STATEMENT OF COMPLIANCE WITH WORD LIMITATION

This brief complies with the 14,000-word limitation found at 40 C.F.R. § 124.19(d)(3).
See 40 C.F.R. § 124.19(d)(1)(iv).

STATEMENT REGARDING ORAL ARGUMENT

EPA believes that the issues raised by this permit modification appeal are straightforward and can be resolved through review of the record and legal arguments set forth in the filings in this matter. Accordingly, EPA does not believe that oral argument is necessary.

I. INTRODUCTION

The U.S. Environmental Protection Agency (“EPA”), Region 5 (“Region”), hereby responds to the Petition for Review filed on February 7, 2017 (“Petition”) with the Environmental Appeals Board (“EAB” or “Board”) by Jeffrey Sprague (“Petitioner”) challenging a Modification to Permit No. IL-115-6A-0001 issued by the Region to Archer Daniels Midland (“ADM”) on January 19, 2017, pursuant to the Underground Injection Control (“UIC”) Program under Part C of the Safe Drinking Water Act (“SDWA”), 42 U.S.C. §§ 300h *et seq.* EPA respectfully requests that the Board dismiss and/or deny the four claims of the Petition, because the claims either fail to meet the threshold filing requirements of 40 C.F.R. § 124.19(a)(4)(ii), or the claims lack merit.

In support of its motion, EPA states the following:

II. STATUTORY AND REGULATORY FRAMEWORK

1. Congress enacted the SDWA in 1974 to ensure that the Nation’s sources of drinking water are protected against contamination and “to prevent underground injection which endangers drinking water sources.” 43 U.S.C. § 300h(b). Part C of the SDWA, 42 U.S.C. §§ 300h to 300h-8, is designed to protect underground sources of drinking water (“USDWs”) from contamination caused by the underground injection of fluids. Among other things, the SDWA directed EPA to promulgate permit regulations containing minimum requirements for State UIC programs. 42 U.S.C. § 300h. The Class VI regulations underwent their own notice and comment process pursuant to 42 U.S.C. § 300h(a)(2) and 5 U.S.C. § 553. The State of Illinois has not received approval to implement the UIC Program of the SDWA for Class VI wells; therefore, the Region is the permitting authority for Class VI wells in Illinois. *See* 40 C.F.R. §§ 147.1951 – 147.1955.

2. EPA's regulations implementing the UIC program are contained in 40 C.F.R. Parts 144-147. Part 144 establishes the regulatory framework, including permitting requirements, for EPA-administered UIC programs (Part 145 covers State UIC program requirements, but is not relevant to this appeal). Part 146 sets out technical criteria and standards that must be met in permits. Procedural requirements applicable to UIC permits are found in 40 C.F.R. Part 124.

III. THE PERMIT AND THE APPEAL

3. On November 8, 2016, EPA issued, and notified the public of the opportunity to comment on, the draft major modification to the original UIC permit IL-115-6A-0001 ("Permit") for the ADM facility in Decatur, Illinois, for the operation of a Class VI well for injection of carbon dioxide. The well is referred to as CCS#2. The original Permit was issued by EPA to ADM on December 1, 2014, authorizing construction and operation of a Class VI well.

4. The modification ensures the conditions of the Permit are more (or at least equally) protective of USDWs in ways which include: the addition of initial start-up monitoring and reporting, updating well construction and geological properties, refining of the computational model of plume and pressure front behavior to more accurately incorporate observations and measurements made during well construction, and designating a larger "area of review."

5. The public comment period for the draft modification ended on December 14, 2016.

6. On December 6 and December 13, 2016, Petitioner submitted comments on the draft modification to EPA. Petition at pp. 3-4.

7. On January 19, 2017, EPA issued the major modification to the Permit. Along with the modification, EPA issued a Response to Comments (RtC), which provided EPA's responses to all public comments received on the proposed modification during the comment period (a copy of the RtC is provided as Attachment 1). In the RtC, EPA responded to each of Petitioner's comments. *See* RtC at pp. 1, 4, 12-14, 23 and 32-33.

8. EPA mailed the notice of the modification to the Permit, and the RtC, to ADM and the commenters who participated in the public comment process (the only comments EPA received were from ADM and Petitioner). Petitioner received the notice and RtC.

9. The RtC provided detailed instructions on how to appeal the modification to the Board, as provided in 40 C.F.R. §124.19. The cover letter EPA sent to Petitioner transmitting the modification and RtC also outlined the requirements of 40 C.F.R. §124.19 and provided mailing and filing information.

10. On February 7, 2017, Petitioner filed the Petition with the Board (a copy of the Petition is provided as Attachment 2). The Petition objects that EPA failed: (1) to extend the comment period for the draft modification so that Petitioner could review modeling software "to corroborate or dispute USEPA's findings regarding the extent of the Area of Review" ("Claim 1"); (2) to enter into consultation with the U.S. Fish and Wildlife Service ("FWS"), for the draft modification, in accordance with Section 7 of the Endangered Species Act ("Claim 2"); (3) to address Illinois property law issues related to ownership of subsurface pore space ("Claim 3"); and (4) to provide access to proprietary modeling software so that Petitioner could reconstruct the modeling done by the applicant and EPA ("Claim 4"). The Petition failed to identify any "contested permit conditions" of the modification pursuant to 40 CFR § 124.19(a)(4)(i).

11. The Clerk of the Board received the Petition on February 7, 2017. See Board docket for this matter.

12. As detailed below, Claims 2, 3 and 4 of the Petition should be dismissed for failure to meet the threshold filing requirements of 40 C.F.R. §124.19. The Petition fails to explain why EPA's responses to Petitioner's comments in the RtC relating to Claims 2, 3 and 4 are clearly erroneous or otherwise warrant review.

13. As detailed below, all of the claims of the Petition should be denied on the merits.

IV. BOARD REVIEW OF PERMIT APPEALS

14. In considering any petition filed under 40 C.F.R. §124.19(a), the Board first evaluates whether the petitioner has met threshold procedural requirements. *See* 40 C.F.R. § 124.19(a)(2)-(4); *see also In re MHA Nation Clean Fuels Refinery*, 15 E.A.D. 648, 652 (EAB 2012) (citing *In re Beeland Group, LLC*, 14 E.A.D. 189, 194-195 (EAB 2008)). If the Board concludes that a petitioner satisfies all threshold pleading obligations, only then does the Board evaluate the merits of the petition for review. *In re Seneca Resources Corp.*, UIC Appeal Nos. 14-01 through 14-03 at 2 (EAB May 29, 2014) (Order Denying Review) (citing *In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 143 (EAB 2006)). If a petitioner fails to meet a threshold requirement, the Board typically denies or dismisses the petition for review. *See, e.g., In re Cherry Berry BI-25 SWD*, UIC Appeal No. 09-02 at 3 (EAB August 13, 2010) (concluding petition did not articulate any specific permit conditions for review); *In re Russell City Energy Ctr. LLC*, PSD Appeal Nos. 10-12 and 10-13 at 7 (EAB June 9, 2010); *In re Presidium Energy, LLC*, UIC Appeal No. 09-01 at 5 (EAB July 27, 2009) (concluding petition lacked required specificity); *Beeland* at 4, 10-11 (concluding that petitions lacked specificity); *In re Sammy Mar, LLC*, UIC Permit Appeal 15-02 at 12-13 (EAB February 16, 2016); *see also In re Envotech, LP*,

6 E.A.D. 260, 265-69 (EAB 1996) (dismissing multiple petitions on threshold grounds including specificity).

15. In any appeal from a permit decision issued under Part 124, the petitioner bears the burden of demonstrating that review is warranted. 40 C.F.R. § 124.19(a)(4). The petitioner bears that burden even when the petitioner is unrepresented by counsel (or pro se), as in the case here. *In re Shell Gulf of Mexico, Inc. & Shell Offshore, Inc.*, 15 E.A.D. 470, 478 (EAB 2012) (citing *In re Sutter Power Plant*, 8 E.A.D. 680, 687 & n.9 (EAB 1999)). However, the Board endeavors to liberally construe the petitions to fairly identify the substance of the arguments being raised. *Sutter*, 8 E.A.D. at 687; *see also In re Environmental Disposal Systems, Inc.*, 12 E.A.D. 254, 292 n.26 (EAB 2005). While the Board “does not expect such petitions to contain sophisticated legal arguments or to employ precise technical or legal terms,” the Board nevertheless “does expect such petitions to provide sufficient specificity to apprise the Board of the issues being raised.” *Sutter*, 8 E.A.D. at 687-88; *accord In re Puerto Rico Electric Power Authority*, 6 E.A.D. 253, 255 (EAB 1995).

16. To the extent a petitioner challenges an issue the permit issuer addressed in its response to comments, the petitioner must provide a record citation to the comment and response and also must explain why the permit issuer’s previous response to those comments was clearly erroneous or otherwise warrants review. *See* 40 C.F.R. § 124.19(a)(4); *Cherry Berry* at 5 (citing eight Board decisions); *see also In re Sierra Pacific Industries*, PSD Appeal Nos. 13-01 through 13-04 at 19-20 (EAB July 18, 2013).

17. The Board has consistently denied review of petitions that merely cite, attach, incorporate, or reiterate comments previously submitted on the draft permit. *See, e.g., In re City of Pittsfield*, NPDES Appeal No. 08-19 (EAB Mar. 4, 2009) *aff’d*, 614-F.3d 7, 11-13 (1st Cir.

2010); *In re Knauf Fiber Glass, GmbH*, 9 E.A.D. 1, 5 (EAB 2000) (“Petitions for review may not simply repeat objections made during the comment period; instead they must demonstrate why the permitting authority’s response to those objections warrants review.”); *In re Pennsylvania General Energy Co., LLC*, UIC Appeal Nos. 14-63 through 14-65, at 18 (EAB August 21, 2014); *Beeland* at 195-6.¹

18. On permit decisions, the Board generally defers to the permit issuer. *In re Puna Geothermal Venture*, UIC Appeal Nos. 99-2 through 99-5 at 246 (EAB June 27, 2000) (As the Board has stated on numerous occasions, the Board’s power of review should be ‘sparingly exercised.’ (citations omitted)); *In re FutureGen Industrial Alliance, Inc.*, UIC Appeal Nos. 14-68 to 14-71 at 5 (EAB April 28, 2015) (In considering whether to grant or deny review of a permit decision, the Board is guided by the preamble to the regulations authorizing appeal under Part 124, in which the Agency stated that the Board’s power to grant review “should be only sparingly exercised,” and that most permit conditions should be finally determined at the [permit issuer’s] level.” (citations omitted)).

19. “When evaluating a challenged permit decision for clear error, the Board examines the administrative record that serves as the basis for the permit to determine whether the permit issuer exercised his or her ‘considered judgment.’” *In re West Bay Exploration Co.*, UIC Appeal No. 15-03 at 6 (EAB July 26, 2016); *See, e.g., In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 191, 224-25 (EAB 2000); *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417-18 (EAB 1997). “The permit issuer must articulate with reasonable clarity the reasons supporting its conclusion

¹ In *Seneca Resources*. at 7 fn. 4, the Board discusses that “Federal circuit courts of appeal have consistently upheld the Board’s threshold requirements, “including the requirement that a petitioner must substantively confront the permit issuer’s response to the petitioner’s previous objections,” and provides numerous case citations.

and the significance of the crucial facts it relied on when reaching the conclusions. As a whole the record must demonstrate that the permit issuer ‘duly considered the issues raised in the comments’ and ultimately adopted an approach that ‘is rational in light of all information in the record.’” *West Bay* at 6 (citations omitted). The Board will uphold a permitting authority’s reasonable exercise of discretion if that decision is “coherently explained and supported in the record.” *FutureGen* at 5-6 (citations omitted).

20. In accordance with the authority cited above, to the extent that any of Petitioner’s claims do not include an explanation as to why the Region’s response to Petitioner’s comment on that claim was clearly erroneous or otherwise warrants review, such claim should be dismissed.

21. In accordance with the authority cited above, in this case EPA has demonstrated that it exercised considered judgment, articulated its rationales and the crucial facts, duly considered the issues raised in the comments, and adopted an approach that is rational in light of the information in the record.

V. PETITIONER’S CLAIMS FAIL

22. While the Petitioner may not be satisfied with the issuance of the modification of the Permit, EPA responded to each of the issues Petitioner raised in his comments in the RtC, and to the merits of all four Claims (RtC page citations are provided in the discussion of each claim below). The Petition fails to provide a citation to the relevant comment and response and explain why EPA’s response to the comment was clearly erroneous on three of the claims raised (Claims 2, 3 and 4). The Petition has failed to demonstrate that EPA committed clear error on the merits of any of the four Claims.

Claim 1 - Duration of Comment Period

23. Petitioner's first claim asserts that EPA was arbitrary and capricious in not granting a 120-day comment period extension "that would facilitate a thorough public audit of the modeling procedures and results and full scrutiny of the administrative record." Petition pg. 5. Petitioner states that this "undertaking would require months to accomplish." Petition pg. 5. Petitioner's stated intention for the requested extension was merely to "conduct simulations to corroborate or dispute USEPA's findings regarding the extent of Area of Review." Petition pg. 5.

24. Supporting the Agency's denial of the long extension, EPA indicated in the RtC that its "decision on the length of the public comment period is commensurate with the scope of changes made since the Permit was issued in 2014, and the level of public interest in the initial permits for this project." RtC pg. 2-3. This conclusion reflects careful consideration of the facts including that: the original 2014 Permit set forth the major parameters for the wells at issue; the instant action is only a modification of the 2014 Permit; EPA held public meetings, public outreach and public hearings on the Permit and the modification, including a public hearing in Decatur on December 13, 2016;² and the Petition did not indicate any areas of potential mistake in the technical basis for the permit.

25. Further, EPA explained that the 34-day comment period provided here on the modification complied with the 30-day public comment period requirement at 40 CFR 124.10, and that no one else had requested a comment period extension. RtC pg. 2. EPA also pointed out that the decision regarding the comment period was "commensurate with the scope of changes made since the permit was issued in 2014 and the level of interest in the initial permits

² For a list of EPA's public outreach efforts see RtC pg. 3. The records of these proceedings indicate that Petitioner did not participate in the public hearing on the modification.

for this project.” RtC pp 2-3. EPA confirmed that it “received no inquiries on the injection wells from any parties other than the applicant and did not anticipate heightened public interest or comment for this draft permit modification.” RtC pg. 3. EPA determined that “the timing reflects a commitment to making timely permitting decisions while fully considering the information submitted to ensure a protective decision.” RtC pg. 2. These findings explained EPA’s decision, are within the Agency’s reasonable consideration, and are not clearly erroneous. The Seventh Circuit, in which the well is located, has held that, absent compelling circumstances, “once an agency has fulfilled the statutory requirements governing a[n] [APA section] 553 rulemaking, its decision may not be subjected to any additional procedural restraints.” *North American Van Lines, Inc. v. I.C.C.*, 666 F.2d 1087 (7th Cir. 1981) (citing *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 546-49 (1978)). Accordingly, EPA’s considered decision on the length of the public comment period should not be disturbed.

26. The Petition does not set forth a compelling reason to grant the requested long extension for Petitioner to review the permit process. Such grant here would create harmful precedent for long, delayed EPA permit processes, and nothing would prevent any potential commenter from making such requests on any future EPA permit. This result would vitiate the approach to public comment set forth in the Administrative Procedures Act, 5 U.S.C. § 551 *et seq.* (“APA”), and the UIC permit regulations.

27. The decision to not extend the comment period for this permit modification meets the statutory requirement under the APA and is consistent with agency decisions on comment periods for other UIC permits. In the context of informal rule making under the SDWA, the Tenth Circuit held that the SDWA and APA did not compel EPA to extend a 45-day comment

period by 30 days. *Phillips Petroleum Co. v. U.S. E.P.A.*, 803 F.2d 545, 559 (10th Cir. 1986).

Where a party has a full and fair opportunity to comment, and the party has presented no evidence that they were prejudiced, a court will not impose more stringent procedural requirements on an agency. *See id.* This is so even where the “technical complexity” is such that a “somewhat longer comment period might have been helpful” and the agency has previously contemplated the issue at hand. *Connecticut Light & Power Co. v. Nuclear Regulatory Comm'n*, 673 F.2d 525, 534 (D.C. Cir. 1982).

28. EPA’s finding here not to grant a months-long extension for an open-ended study on a permit modification is within the reasoned discretion of the Agency, duly considered the comments and is not clearly erroneous. Accordingly, the Board should not overturn the Agency’s considered and supported decision.

Claim 2 - Consultation with FWS

29. Petitioner’s second claim asserts that EPA “failed to consult with USFWS prior to the issuance of the modified ... permit ... to address any potential acute or chronic effects to any of the threatened and endangered species or their respective critical habitats.” Petition, pg. 7. Claim 2 repeats Petitioner’s comment during the comment period and does not indicate why EPA’s Response to Comments was clearly erroneous.

30. The Petition does not provide a “citation to the relevant ... response” or to “explain why [EPA’s] response to the comment was clearly erroneous or otherwise warrants review,” as required by 40 C.F.R. § 124.19(a)(4)(ii). Consequently, as further described in Paragraph 20, above, Claim 2 should be dismissed.

31. Even if Claim 2 is not dismissed, the Board should deny the claim. EPA’s response to this comment confirmed that EPA had “determined that there would be no effect on

listed species” from the modification (RtC p. 5), and thus satisfied the section 7 ESA requirement.

32. Section 7(a)(2) of the ESA imposes procedural and substantive requirements on federal agencies, the effect of which is the creation of a substantive duty for “federal agencies to ensure that none of their actions, including the issuance of a permit, [are] likely to jeopardize” endangered species or their habitat. See *Indeck* at 195. This case falls within an exception to formal consultation requirements. EPA was not required to formally consult with FWS in this case because it determined, as reflected in the administrative record, that the permit modification at issue will have no effect on listed species or critical habitat. See copy of EPA’s “no effect” memo, dated October 26, 2016, at Attachment 3.

33. An agency avoids the consultation requirement under section 7 of the ESA if it determines that its action will have “no effect” on a listed species or critical habitat.³ *Karuk Tribe of California v. U.S. Forest Service*, 681 F.3d 1006, 1028 (9th Cir. 2012) (citing *Southwest Center for Biological Diversity v. U.S. Forest Service*, 100 F.3d 1443, 1447–48 (9th Cir. 1996); see also *In re Phelps Dodge Corporation Verde Valley Ranch Development*, 10 E.A.D. 460, 486 (EAB 2002) (“if an agency decides its proposed action will have no effect on listed species... the section 7 process ends.”).

34. In order to make the ESA determination, EPA reviewed the project and relevant species and habitat information and determined that “all ground disturbance associated with the construction of the well, associated pipelines, monitoring wells, and other surface equipment

³ The regulations implementing the ESA, at 50 C.F.R. § 402.01 *et. seq.*, provide that a federal agency “shall review its actions at the earliest possible time to determine whether any action may affect listed species or critical habitat. *If such a determination is made, formal consultation is required*, except as noted in paragraph (b) of this section.” 50 C.F.R. § 402.14(a) (emphasis added). When an agency determines that its action will have *no* effect, there is no requirement for formal consultation. See *Phelps Dodge*, 10 E.A.D. at 486; *Indeck*, 13 E.A.D. at 196.

have been completed and found that there are no anticipated impacts to any federally endangered species.” See Attachment 3. This finding met the ESA requirements, and the Petition makes no claim that the “no effect” finding was erroneous or flawed in any way. The Board should confirm that EPA is not required to consult with the FWS because EPA made a “no effect” finding in the record here

35. The Board should note that Claim 2 did *not* allege any potential effect from the modification on listed species or critical habitat.

36. The Petition completely overlooks the “no effect” finding, and relies on a nonexistent “consultation requirement.”

37. In Claim 2, Petitioner bases his claim of a “consultation requirement” on out-of-context language from footnote 154 of *Indeck*. The footnote refers back to dicta from the Board’s decision in a case involving the ESA formal consultation requirement, *In re Ash Grove Cement Co.*, 7 E.A.D 387 (EAB 1997). Unfortunately, page 7 of the Petition quotes some but not all of the footnote, omitting important context. The footnote in its entirety states:

We recognize that our approach here could be viewed as a refinement of our thinking in *In re Ash Grove Cement Co.*, 7 E.A.D. 387 (EAB 1997). In *Ash Grove*, as in this case, the relevant Region did not consult with FWS regarding ESA impacts or receive written concurrence of no adverse effect to endangered or threatened species or critical habitat until after the permit (RCRA) was issued, and there, as here, we found consultation during the pendency of the appeal sufficient for ESA purposes. In the course of so ruling, however, we stated in dicta, “*it appears that the [r]egion failed to satisfy the regulatory requirements for endangered species consultation prior to issuance of the permit.*” *Id.* (emphasis added). Here, with the benefit of more fulsome briefing on the issue, we find more nuance in the dynamic, concluding that waiting to consult as late as during the pendency of a PSD appeal can meet minimum legal requirements, although it is prudentially inadvisable. *In re Indeck-Ehwood, LLC*, 13 E.A.D. 126, 208, footnote 154 (EAB 2006).

38. The footnote does not support the claim, as both *Ash Grove* and *Indeck* are distinguishable from the instant case. In *Ash Grove* EPA engaged in consultation with the FWS after the permit was issued. EPA then obtained FWS concurrence during the pendency of the appeal, rendering the issue moot.

39. The *Indeck* case was about the timing of a *required* consultation. Petitioner omits the first and last sentences of the *Indeck* footnote, giving the misleading impression that the Board is elaborating on the substantive issue of whether formal ESA consultation is required, whereas the Board is actually making a finer point about timely compliance when formal consultation is demonstrably required. The last sentence in the footnote makes it clear that the Board is stressing that the ESA determination (and formal consultation, if required) should be completed early in the permit process. The discussion appears under the heading “What is the Time Frame for Complying With The ESA’s Consultation Requirements and Was it Met In This Case?” The sentence to which the footnote is attached explicitly pertains to the procedural requirement of timeliness, not the preliminary substantive question of whether formal consultation is required. Petitioner’s argument that in the instant case EPA must engage in formal consultation with FWS to comply with the ESA is not supported by the citation to the *Indeck* footnote regarding timely consultation.

40. If the Board were to grant Petitioners claim, EPA could, as set forth in *Indeck*, still consult with FWS, but there would be no substance to such consultation. Formal consultation here would be an “empty gesture.” See *Indeck* at 208.

41. Because EPA made an unchallenged “no effect” finding in this case, EPA’s decision to not formally consult with FWS here complied with the ESA, was within the reasoned discretion of the Agency, duly considered the comments and is not clearly erroneous. Accordingly, if the Board considers Petitioners Claim 2, it should find the claim unsupported and deny the claim.

Claim 3 - Illinois Property Law

42. For Petitioner's claim that EPA failed to address Illinois property law issues related to ownership of subsurface pore space, the Petition asserts that EPA "has failed to include provisions consistent with Illinois real property law that compensate owners of pore space impacted by the CO₂ plume." Petition, p. 8. However, in the RtC, EPA, correctly, "clarifies that property/land ownership rights, mineral rights and pore space ownership are outside the scope of this permit action and EPA's authority under the Safe Drinking Water Act." RtC, p. 4.

43. The Petition does not provide a "citation to the relevant ... response" or to "explain why [EPA's] response to the comment was clearly erroneous or otherwise warrants review," as required by 40 C.F.R. § 124.19(a)(4)(ii). Consequently, as further described in Paragraph 20, above, Claim 3 should be dismissed.

44. Even if Claim 3 is not dismissed by the Board, EPA's Response to Comments applied a correct interpretation that the comment requested action beyond the scope of the permit process and EPA's finding should be upheld. See RtC p. 4.

45. Since the original Permit did not contain "provisions consistent with Illinois real property law that compensate owners of pore space impacted by the CO₂ plume" it would be anomalous and confusing for the technical revisions in the modification at issue to contain such provisions. In essence, in this Claim the Petitioner seeks to modify the original permit, which is already final and not subject to appeal or modification here.

46. EPA's finding is supported by 40 C.F.R. § 144.35(b) and (c) which expressly *exclude* from the UIC permit process property rights considerations of the types suggested by Petitioner's comment.

47. The Board had consistently upheld this principle. *Envotech*, 6 E.A.D. at 264 ("[T]he SDWA ... and the UIC regulations ... establish the *only criteria* that EPA may use in

deciding whether to grant or deny an application for a UIC permit.”) (emphasis in original). Neither the SDWA nor the UIC regulations authorize EPA to regulate injection wells beyond their impact on USDWs. See *In re American Soda, LLP*, 9 E.A.D. 280, 289 (EAB 2000); *Cherry Berry* at 3, fn 4. Correspondingly, the Board’s authority to review UIC permit decisions extends only to the UIC program requirements and its focus on protection of USDWs. See *In re Sunoco Partners Marketing & Terminals, LP*, UIC Appeal No. 05-01 at 10 (EAB June 1, 2006) (citations omitted). The Board provided extensive discussion of this principle at *Environmental Disposal Systems, Inc.*, 12 E.A.D. at 266-268. The Board has ruled that it “does not have authority to consider issues raised by petitioners concerning matters that are exclusively within the State’s power to regulate,” *Envotech*, 6 E.A.D. at 275-276. The Board specifically denied review in a UIC permit appeal of an issue of “subsurface mineral rights in the area surrounding the well.” *In re Windfall Oil & Gas, Inc.*, UIC Appeal Nos. 14-73 through 14-190 at 56 (EAB June 12, 2015).⁴

48. EPA’s decision to not include State property rights provisions in this UIC permit modification was within the reasoned discretion of the Agency, duly considered the comments and is not clearly erroneous, and should not be overturned by the Board. Accordingly, if the Board considers Petitioner’s Claim 3, it should find that Petitioner has not demonstrated that the Agency’s decision was clearly erroneous, and the Board should deny the claim.

Claim 4 - Proprietary Software

49. Petitioner’s fourth claim asserts that EPA failed to “provide the general public with reasonable access to proprietary software in order to independently verify and provide

⁴ The Permittee must, of course, still comply with all applicable state and local laws and regulations. The Permit provides that “[i]ssuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local laws or regulations.”

comment upon modeling results.” Petition pp. 9-10. However, EPA explained its determination that the proprietary software used in the modeling effort here could not be provided to the public because of concerns regarding the practical feasibility. RtC pp. 7-8. Additionally, there is no statutory basis for Petitioner’s claim.

50. The Petition does not provide a “citation to the relevant ... response” or to “explain why [EPA’s] response to the comment was clearly erroneous or otherwise warrants review,” as required by 40 C.F.R. § 124.19(a)(4(ii)). Consequently, as further described in Paragraph 20, above, Claim 4 should be dismissed.

51. Even if Claim 4 is not dismissed by the Board, EPA’s Response to Comments explained the decision to not provide proprietary software to the public is reasonable and should be upheld. See RtC pp. 7-8.

52. In response to Petitioner’s comments regarding EPA’s failure to provide reasonable access to proprietary modeling software, EPA stated:

EPA conducted its evaluation of the AoR modeling effort using STOMP, a multi-fluid subsurface flow and transport simulator developed by the Pacific Northwest National Laboratory (PNNL). The STOMP-CO₂ and STOMP-CO₂e simulators were designed specifically to investigate geologic sequestration of CO₂ in deep saline reservoirs such as the Mt. Simon. The permit applicant, ADM, used Schlumberger’s ECLIPSE simulator referenced by the commenter. Please see the responses to comments 9 and 12 for further information on the modeling approach and regulatory requirements.

The commenter’s suggestion that the UIC Branch of EPA’s Water Division which implements regulations under authority of the Safe Drinking Water Act should adopt practices of the Air and Radiation Division (which implements regulations under the Clean Air Act and other authorities) is misguided. The two programs’ approaches are not analogous.

Under the Clean Air Act, Congress mandated that EPA’s Office of Air and Radiation ensure “consistency and encouraged the standardization of model applications” (see 40 CFR 51) by regulation. In support of this mandate and the associated regulations, EPA’s Office of Air and Radiation made certain modeling software available online. Much of the modeling conducted under the Clean Air Act involves simplified situations of a steady state, single source, inert pollutant.

In contrast, the Safe Drinking Water Act does not mandate the use of specific software. Furthermore, EPA's Office of Water - UIC Program intentionally developed the Class VI regulations to afford each permit applicant/owner or operator the flexibility to select an appropriate computational modeling approach for delineating the Area of Review "that accounts for the physical and chemical properties of all phases of the injected carbon dioxide stream and is based on available site characterization, monitoring and operational data" (40 CFR 146.84). Computational modeling of Class VI projects is complex, multi-phase, and consists of potentially multi-source scenarios which can include millions of nodes (data points) that often require supercomputing capabilities.

There are various computational approaches that a permit applicant can choose depending on site and project specific factors such as geology and operational design. Considering continuous advances in this area of science, EPA thought it appropriate to ensure that owners or operators have sufficient flexibility to adequately identify the area with increased risks to USDWs using the most current and compliant modeling approach. This approach also ensures that as technologies advance, new, innovative technologies that meet the regulations can be applied at Class VI projects. EPA adds that it is not required to provide a temporary license for the software or provide members of the public an opportunity to conduct their own simulations.

In its evaluation, EPA assessed ADM's computational approach (including the specific software used); conceptual/geologic model and its consistency with formation testing results; constitutive relations; model boundaries; maximum injection pressure; and all other model inputs. This assessment was conducted to ensure that the modeling effort meets the requirements of the Class VI Rule and that the model accurately reflects the available site characterization data as well as the pre-operational logging and testing results. The report "ADM CCS2 Memo to the Record - AoR" (AR #433) documents this evaluation, including the model inputs and the results of EPA's evaluation. The report is part of the administrative record for the draft permitting and remains available upon request. As a result of this assessment, EPA confirmed that ADM's model is based upon a reasonably constructed and applied approach." RtC at pp. 7-9.

53. The request for proprietary software in Claim 4 is far beyond the comment rights contemplated under the APA and Part 124. Petitioner has not cited any precedent for such a broad expansion of the nature of a public comment period on an EPA permit, and EPA is not aware of any such precedent.

54. EPA believes that it is unprecedented and unreasonable to set the duration of a public comment period such that any member of the public can first become proficient in and then run complex geomechanical, geochemical and hydrogeologic simulation models.

55. Additionally, the Petition implicitly assumes that EPA: 1) owns or has rights to the requested software; and 2) has the right to distribute copies of the software to members of the public.⁵ Although not specifically addressed in the RtC, these assumptions are not correct. EPA utilizes the STOMP software under a ‘Software User Agreement for U.S. Government Use Only’ which provides that “[t]his Software is provided for use on Federally funded projects only. If User desires to utilize the software in any other capacity, User must acquire a commercial license from Battelle Memorial Institute (BMI), Attention Sr. License Associate, MSIN K1-53, P.O. Box 999, Richland, Washington 99352.⁶ The U.S. Government has rights in this Software in accordance with DEAR 970.5227-2, but BMI has retained all copyrights.” Thus, private parties wishing to use the STOMP software must work directly with BMI to obtain access to it. Even if this claim were granted by the Board, it may be impossible, or very time-consuming and unreasonably expensive, for EPA to provide the requested software to Petitioner.

56. If Petitioner’s Claim 4 were to be granted, it would set precedent that the Agency would be required to turn over to the public any software used in modeling relevant to a permit decision. This would raise a multitude of significant issues including: licensing; copyright; software ownership, distribution and use restrictions; fees and software developers’ rights. If all software used by EPA, or relating to an EPA permit matter,⁷ were subject to being shared with any member of the public who requests it, software owners would be deterred from allowing EPA to use their software, and the permit process would be significantly impaired. Similar to the

⁵ The ECLIPSE software referenced in Claim 3 (Petition at pg.10) was utilized by the permittee, not by EPA (RtC pg. 17). EPA Region 5 does not have this software or access to it.

⁶ A copy of the Software Agreement Form for STOMP is provided at Attachment 4.

⁷ If a member of the public requested that EPA provide him or her with a copy of EPA’s WordPerfect or Word program to use in preparing a comment to a UIC permit, EPA would similarly expect the Board to uphold a denial of such request.

property rights issues raised by Claim 3, above, granting this claim would create a permit process which would which would result in a significant commitment of time on the part of both the EPA and the Board to grapple with a host of complex ancillary issues unrelated to the parameters of the UIC permit process and USDW protection.

57. Contrary to the Petition's claim, the APA does not require an agency to provide commenters or potential commenters with the tools—much less proprietary software—to evaluate an agency's conclusions. The purpose of the comment period under the APA is to allow interested members of the public to communicate information, concerns and criticisms to the agency during the rule-making process. *Shands Jacksonville Medical Center v. Burwell*, 139 F.Supp.3d 240 (quoting *Connecticut Light*, 673 F.2d at 530). In this context, “[i]t is especially important for the agency to identify and make available technical studies and data that it has employed in reaching the decisions.” *American Radio Relay League v. FCC*, 524 F.3d 227 at 236 (D.C. Cir. 2008) (quoting *Connecticut Light*, 673 F.2d at 530). Here, the EPA published the results of the STOMP analysis in the report “ADM CCS2 Memo to the Record – AoR”, which was made available as part of the administrative record (at AR-433). The report included all of the model inputs.

58. There is no statutory requirement to provide the public with actual software to analyze the studies or data. Rather, EPA is required to provide “[t]he most critical factual material that is used to support the agency's position on review.” *Owner–Operator Independent Drivers v. Federal Motor Carrier Safety Administration*, 494 F.3d 188, 199 (D.C. Cir. 2007). The “critical factual material” that the agency must disclose includes the models and methodology used by an agency to support its action. *See id.* at 201. EPA's report is such factual

material; which EPA has made readily available to the public. Thus, EPA has met its obligations to the public under the APA.

59. Administrative agencies clearly are allowed to use predictive models in the regulatory process. *See Sierra Club v. Costle*, 657 F.2d 298 at 332–35 (D.C. Cir. 1981). Courts require an agency to “explain the assumptions and methodology used in preparing the model” and, if the methodology is challenged, to “provide a ‘complete analytic defense.’” *Id.* at 333 (quoting *American Public Gas Association v. Federal Power Commission*, 567 F.2d 1016, 1039 (D.C. Cir.1977), cert. denied, 435 U.S. 907 (1978)). EPA is not aware of any court interpreting notice and comment obligations under the APA to require more. Indeed, it is sufficient that EPA has provided a “complete analytic defense” of its evaluation and predictive model outputs in its report in the administrative record.

60. EPA’s decision to not provide the proprietary software at issue to the Petitioner was within the reasoned discretion of the Agency, duly considered the comments and is not clearly erroneous, and should not be overturned by the Board. Accordingly, if the Board considers Petitioner’s Claim 4, it should find that Petitioner has not demonstrated that the Agency’s decision was clearly erroneous, and the Board should deny the claim.

VI. GENERAL POINTS

61. EPA requests that the Board keep in mind that the modification at issue makes the Permit more, not less, protective of USDWs than required under the conditions of the original Permit.⁸

⁸ The modification has increased protection of USDWs by utilizing site specific geologic information collected during construction of the well to better define the injection interval and refine the computational modeling results.

62. EPA has determined that the conditions of the Permit modification are more than adequately protective of USDWs. This determination was made by EPA based upon review of a multitude of information, as set forth in the administrative record, including testing of the geologic formations upon drilling of the well, updated computational modeling of the plume and pressure front, and review of all permit conditions with respect to the permit modifications in order to ensure continued protectiveness. As noted above, the Petition does not actually question *any* technical finding made by EPA in the modification. In EPA's view there is simply not any substance to the four claims of the Petition that should be found to hold up application of the EPA's well-supported technical findings which result in the Permit being modified to be more protective of USDWs.

VII. CONCLUSION

63. For the reasons set forth above, EPA respectfully requests that the Board dismiss and/or deny the four claims raised in the Petition.

Respectfully submitted,



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