

07-13441-02
03020681

From: BRISBIN, JOHN M
To: [Lawyer, Dennis](#)
Subject: [External_Sender] RE: Notification of decommission of the field test plot under the DuPont - US NRC Radioactive Material License Number 07-13441-02 at the Stine-Haskell Research Center.
Date: Monday, June 18, 2018 1:51:25 PM
Attachments: [Attachment E - Field Study Termination Procedure Examples.pdf](#)

Dear Mr. Lawyer,

As per our phone conversation (June 4, 2018), please see Attachment E: *Field Study Termination Procedure Examples.pdf* with this email, demonstrating summary examples and confirmation of field study decontamination verification at the termination of typical field studies at the Stine Haskell Farm 14C Field Test Plot. All Study decontamination verifications were performed by the Field Study Coordinator (Department individual assigned as the Field Custodian/Study Facilitator for every field study/application performed within the Field Test Plot Area).

Regards,

John M. Brisbin

Radiation Safety Officer (RSO)
Environmental Compliance SHE Consultant
DuPont Experimental Station, E249/207
200 Powder Mill Road
PO Box 8352
Wilmington, DE 19803

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[ES&RE Environmental SharePoint Site](#)



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Attachment E

Field Study Termination Procedure Examples

INTEROFFICE MEMORANDUM

Date: 03-Apr-1996 09:25am
From: JEFF C GUSEMAN
GUSEMAJC
Dept: AG PROD EXSTA E253 Greenhouse
Tel No: (302) 695-9148

TO: Distribution List

Subject: Quarterly Report January - March 1996

As of March 31, 1996 there are 2 active studies and 5 terminated studies at Stine Farm.

Active Studies:

- | | |
|---|-----------|
| 1) JW062 Field Soil Dissipation, AMR# 3400-95,
2 - 3' x 12.4' plots. | 6,180 uci |
| 2) T3217 Crop Rotation, AMR# 3575-95,
6 - 5 gallon pots. | 636 uci |

Active Studies:

- | | |
|---|-----------|
| 1) KM489 Field Soil Dissipation, AMR 2496-912,
2 - 3' x 11' plots. | 100 uci |
| 2) E9636 Tomato Metabolism, AMR# 3561-95,
2 - 2.5' x 4' plots. | 390 uci |
| 3) JW062 Tomato Metabolism, AMR# 3561-95,
2 - 2.5' x 4' plots. | 600 uci |
| 4) KY422 Tomato Metabolism, AMR# N/A,
1 - 2.5' x 4' plot. | 356 uci |
| 5) R6447 Grape Metabolism, AMR# 3511-95,
2 - 3' Diameter plots. | 3,600 uci |

Total 14c at Stine Farm plot is 11,162 uci.

Top 4 inches of soil from Studies 1 - 4 has been removed, disposed of, and soil cores taken from each plot to be combusted. Plots will be decommissioned when 14c levels are background.

Jeff C. Guseman

INTEROFFICE MEMORANDUM

Date: 16-Jun-1995 01:58pm
From: Richard D. Anderson
ANDERSRD
Dept: ACD
Tel No: 695-9685

(HENRY AT A1 AT HSKVAX)
(BRISBINJ)

TO: NORMAN W HENRY
CC: JOHN M BRISBIN
Subject: 14C plot

Norm,

On June 16, 3.5 mCi's was applied to grape vines, AMR# 3511-95. A 3' in diameter area around each vine was treated; plastic landscape material was used to delineate the plots and control lateral water movement. This study will be terminated in approximately 90 days at which time the vines and all contaminated soil will be removed for incineration.

Richard D. Anderson

INTEROFFICE MEMORANDUM

Date: 22-Jun-1995 06:53am
From: Richard D. Anderson
ANDERSRD AT A1 AT ESVAX
Dept: ACD
Tel No: 695-9685

TO: NORMAN W HENRY

(HENRY AT A1 AT HSKVAX)

CC: SUSAN M HAUSMANN

(HAUSMANN AT A1 AT ESVAX)

Subject: 14C plot Stine Farm

On June 21, approximately 600 uCi of radioactive material was applied to 4 pots of potatoes (AMR# 3408-95), at Stine Farm. This study terminates on June 24; at which time all materials will be returned to the Experimental Station.

Richard D. Anderson

INTEROFFICE MEMORANDUM

Date: 28-Jun-1995 02:27pm
 From: Richard D. Anderson
 ANDERSRD AT A1 AT ESVAX
 Dept: ACD
 Tel No: 695-9685

TO: FRANCIS EDWARD FAUNT (FAUNT AT ESVAX AT MRGATE)
 TO: Ruthie H. Sullivan (SULLIVRH AT A1 AT ESVAX)
 TO: DAVID E WAY (WAY AT A1 AT ESVAX)
 TO: DEBORAH H TANDARICH (TANDARDH AT A1 AT ESVAX)
 TO: NORMAN W HENRY (HENRY AT A1 AT HSKVAX)

Subject: Quarterly Report April-June 1995

While going over my records, I found that I did not post a quarterly report for the first quarter - Jan-Mar. During this period there was one active study in the 14C plot: AMR# 2496-92, JE138 Soil Dissipation Study, with 124.0 uCi of activity.

As of June 30, 1995 there were 7 studies, using radioactive materials, at the 14C plot.

- | | |
|--|---------------------|
| 1) JE138 Soil Dissipation, AMR# 2496-92,
2 - 3' x 11' plots | 124 uCi, Terminated |
| 2) E9636 Tomato Metabolism Study, AMR# 3520-95
2 - 2.5' x 4' plots | 390 uCi. Ongoing |
| 3) JW062 Lettuce Metabolism Study, AMR# 2730-93
10 - 5 gallon pots (removed from plot). | 550 uCi. Terminated |
| 4) D732 Blue Berry Metabolism Study, AMR#331-95
6 - 10 gallon pots | 2700 uCi. Ongoing |
| 5) JE874 Wheat Metabolism Study, AMR# 3036-95
14 - 5 gallon pots | 406 uCi Ongoing |
| 6) T3217 Potato Metabolism Study, AMR# 3408-95
6 - 10 gallon pots | 900 uCi Terminated |
| 7) R6447 Grape Metabolism Study, AMR# 3511-95
2 - grapevines | 3,500 uCi Ongoing |

TOTAL 8,570 uCi
 - 550 uCi (removed)

 8,020 uCi 6/30/95

Richard D. Anderson

INTEROFFICE MEMORANDUM

Date: 01-Jun-1994 09:39am
From: Richard D. Anderson
ANDERSRD
Dept: ACD
Tel No: 695-9685

TO: EDWARD C SOWDEN, II

(SOWDENEC)

Subject: Grape Plots

Duke,

The soil cores from the Grape plots are back. This area is released back to you, see results below:

Plot 1 46 dpm/g soil
Plot 2 32 dpm/g soil
Plot 3 8 dpm/g soil
Plot 4 5 dpm/g soil

These results are well below the 1750 dpm/g soil limit for decommissioning.

Thank you,
Richard D. Anderson

GREEN

CSL COMBUSTION REQUEST FORM (27JAN1995LRP)

Submitter: Guseman/Duda Submitted Date/init.: 5-15-96

Study/Samples: Stine soil cores Compound: KY422 AMR:
E9636

Phone: 59145 ^{Decommission 14c plots} Sample wt. range: 1.0000 TO 1.0040 g Comb: times by oper.

Comments/Instructions: 3xlg, 4 min burn time

Signature of Operator: Richard D. Duffey Date: 5/20/96

Standard Activity: 419 DPM/mg Wt.: 0.0982 Combustor #: 5-Starrey

RS1 @STDYDIR & AMR @NEXT SUBDIRECTORY @ALPHN (IFANY) &/OR DETAILS
SUBDIR: @ @ @

No	Description	Wt	No	Description	Wt
1	B (For Equipment Check)		21	Bkg	
2	B (For Equipment Check)		22	E9636 0-4" INSIDE	1.0016
3	CHIP (Same)		23	" " "	1.0014
4	CHIP BLANK (Same)		24	" " "	1.0016
5	B (For Equipment Check)		25	Bkg	
6	KY422 0-4" INSIDE	1.0018	26	E9636 0-4" OUTSIDE	1.0003
7	" " "	1.0019	27	" " "	1.0003
8	" " "	1.0019	28	" " "	1.0009
9	Bkg		29	Bkg	
10	KY422 0-4" OUTSIDE	1.0018	30	E9636 5-8" INSIDE	1.0017
11	" " "	1.0014	31	" " "	1.0009
12	" " "	1.0016	32	" " "	1.0012
13	Bkg		33	Bkg	
14	KY422 5-8" INSIDE	1.0010	34	E9636 5-8" OUTSIDE	1.0007
15	" " "	1.0008	35	" " "	1.0014
16	" " "	1.0019	36	" " "	1.0016
17	Bkg		37	Bkg	
18	KY422 5-8" OUTSIDE	1.0012	38		
19	" " "	1.0015	39		
20	" " "	1.0019	40		
			41		

MINUTES	CTS. A	CTS. B EFF. B	ID. R#	ESP	SDR	KPM B DPM
3 153	2.000	31 67.31	1	5.838	0.795 0.357	19.5 29
3 154	2.000	28 67.64	2	5.718	0.848 0.351	16.5 24
3 155	1.429	12335 40012 69.87	3	4.870	0.308 0.316	28000.0 40074
3 156	2.000	65 68.93	4	5.224	0.481 0.331	67.5 98
3 157	2.000	19 66.74	5	6.686	0.380 0.390	25.0 38
3 158	2.000	37 68.51	6	5.380	0.578 0.337	32.0 47
3 159	2.000	40 69.28	7	5.098	0.538 0.326	37.5 54
3 160	2.000	27 69.51	8	5.005	0.604 0.322	22.0 32
3 161	2.000	27 66.81	9	6.028	0.675 0.364	20.0 30
3 162	2.000	26 68.44	10	5.405	0.426 0.338	30.5 45
3 163	2.000	30 69.15	11	5.187	0.612 0.327	24.5 35
3 164	2.000	26 69.78	12	4.907	0.464 0.316	28.0 40
3 165	2.000	33 68.37	13	5.431	0.605 0.338	20.5 30
3 166	2.000	33 69.65	14	4.958	0.660 0.319	25.0 36
3 167	2.000	31 69.18	15	5.128	0.608 0.327	25.5 37
3 168	2.000	24 69.48	16	5.038	0.538 0.322	22.5 32
3 169	2.000	21 67.93	17	5.608	0.568 0.346	18.5 27
3 170	2.000	25 69.46	18	5.024	0.610 0.322	20.5 30
3 171	2.000	29 69.40	19	5.052	0.659 0.322	22.0 32
3 172	2.000	36 69.60	20	4.978	0.590 0.320	20.5 44

Gusman
 fine soil area
 Decomposition HC
 photo
 5-21-96

KY422
 0-4"
 inside

KY422
 0-4"
 outside

KY422
 5-8"
 inside

KY422
 5-8"
 OUTSIDE

			68.72			0.253	25
	2.000	27	45	22	4.920	0.300	22.5
			69.74			0.317	32
3 175	2.000	23	40	23	4.848	0.275	20.0
			69.98			0.314	29
3 176	2.000	26	52	24	5.015	0.300	26.0
			69.48			0.322	37
3 177	2.000	19	33	25	5.515	0.276	16.5
			68.15			0.343	24
3 178	2.000	29	51	26	4.962	0.269	25.5
			69.63			0.320	37
3 179	2.000	31	48	27	4.888	0.246	24.0
			69.82			0.316	34
3 180	2.000	27	55	28	5.100	0.482	28.0
			69.26			0.326	40
3 181	2.000	23	47	29	7.117	0.489	23.5
			64.07			0.410	37
3 182	2.000	26	62	30	4.833	0.419	31.0
			69.84			0.316	44
3 183	2.000	32	39	31	4.903	0.821	19.5
			70.06			0.311	28
3 184	2.000	24	42	32	4.960	0.571	21.0
			69.90			0.315	30
3 185	2.000	24	26	33	6.999	0.928	13.0
			64.37			0.405	20
3 186	2.000	29	51	34	5.119	0.569	25.5
			69.20			0.327	37
3 187	2.000	25	46	35	4.897	0.630	24.0
			69.81			0.317	33
3 188	2.000	34	55	36	4.803	0.618	27.5
			70.06			0.311	39
3 189	2.000	26	35	37	4.941	0.743	17.5
			69.68			0.319	25

E9636
0-4"
INSIDE

E9636
0-4"
OUTSIDE

E9636
5-8"
INSIDE

E9636
5-8"
OUTSIDE

Res
CSL COMBUSTION REQUEST FORM (27JAN1995LRP)

Submitter: Jeff Coe Submitted Date/init.: 4/8/96 gcs

Study/Samples: STINE Soil Cores Compound: N/A AMR: N/A
Commission 14c. Plots

Phone: 5-9145 Sample wt. range: 1.0000 TO 1.0040 g Comb. times by oper.

Comments/Instructions: 3x 1g 4 min Burn Time - Homogenize

Signature of Operator: _____ Date: _____

Standard Activity: _____ DPM/mg Wt.: _____ G Combustor #: _____

RS1 @STDYDIR & AMR @NEXT SUBDIRECTORY @ALPHN (IFANY) &/OR DETAILS
SUBDIR: @ @ @

No	Description	Wt	No	Description	Wt
1	B (For Equipment Check)		21	Bkg	
2	B (For Equipment Check)		22	JW062 Plot# 1 5-8"	1.0005
3	CHIP (Same)		23	INSIDE	1.0019
4	CHIP BLANK (Same)		24	" " "	1.0019
5	B (For Equipment Check)		25	Bkg	
6	JW062 Plot# 1 0-4"	1.0019	26	JW062 Plot# 1 5-8"	1.0002
7	INSIDE	1.0011	27	OUTSIDE	1.0011
8	" " "	1.0019	28	" " "	1.0016
9	Bkg		29	Bkg	
10	JW062 Plot# 1 0-4"	1.0013	30	JW062 Plot# 2 5-8"	1.0014
11	OUTSIDE	1.0017	31	INSIDE	1.0009
12	" " "	1.0015	32	" " "	1.0012
13	Bkg		33	Bkg	
14	JW062 Plot# 2 0-4"	1.0001	34	JW062 Plot# 2 5-8"	1.0019
15	INSIDE	1.0015	35	OUTSIDE	1.0019
16	" " "	1.0013	36	" " "	1.0010
17	Bkg		37	Bkg	
18	JW062 Plot# 2 0-4"	1.0002	38		
19	OUTSIDE	1.0003	39		
20	" " "	1.0019	40		
			41		

P#	S#	MINUTES	CTS. A	CTS. B EFF. B	ID. R#	ESP	SCR	CFM. B DEM
3 172		2.000	29	37	1	4.845	0.784	18.5
				69.94			0.314	26
3 173		2.000	31	66.95	2	6.194	0.885	17.28
3 174		1.445	12573	40027	3	4.694	0.314	27700.3
				70.35			0.307	39375
3 175		2.000	72	171	4	4.982	0.421	65.5
				69.57			0.320	123
3 176		2.000	29	46	5	6.787	0.530	23.0
				64.89			0.395	38
3 177		2.000	27	43	6	4.767	0.628	21.5
				70.16			0.311	31
3 178		2.000	33	51	7	4.653	0.647	25.5
				70.51			0.308	36
3 179		2.000	30	42	8	4.673	0.714	21.0
				70.41			0.307	30
3 180		2.000	21	38	9	4.901	0.553	19.0
				69.79			0.317	27
3 181		2.000	22	47	10	4.546	0.468	23.5
				70.76			0.302	33
3 182		2.000	28	49	11	4.645	0.651	21.5
				70.43			0.305	31
3 183		2.000	24	58	12	4.543	0.414	29.0
				70.77			0.301	41
3 184		2.000	25	41	13	4.917	0.610	20.5
				69.75			0.317	23
3 185		2.000	29	57	14	4.649	0.509	28.5
				70.48			0.306	40
3 186		2.000	35	64	15	4.664	0.609	32.0
				70.44			0.307	45
3 187		2.000	27	55	16	4.710	0.491	27.5
				70.39			0.308	39

Guseman
 Stine soil cores
 Decommission
 HC plots
 4-17-96
 78D

JW062 0-4"
 plot #1
 INSIDE

JW062 0-4"
 plot #1
 outside

JW062 0-4"
 plot #2
 inside

JW062 0-4"
 plot #2
 outside

ID	Value	Area	Area	Area	Area	Area	Area	Area
188	2,000	28	41	17	4,976	0.561	20.5	
189	2,000	41	56	15	4,629	0.661	30.5	
190	2,000	22	45	19	4,348	0.488	22.5	
191	2,000	32	58	26	4,755	0.614	26.5	
192	2,000	30	52	22	4,722	0.582	26.5	
193	2,000	26	48	22	4,385	0.542	24.0	
194	2,000	26	50	23	4,587	0.520	25.0	
195	2,000	35	54	24	4,462	0.598	27.0	
196	2,000	24	38	23	4,568	0.497	26.5	
197	2,000	41	57	22	4,758	0.695	29.5	
198	2,000	30	50	22	4,388	0.500	30.0	
199	2,000	28	40	18	4,015	0.460	25.5	
200	2,000	22	37	17	3,782	0.370	18.5	
201	2,000	41	56	15	4,623	0.618	24.0	
202	2,000	22	46	20	4,288	0.517	24.5	
203	2,000	25	38	18	4,100	0.571	24.5	
204	2,000	32	50	18	4,657	0.655	29.0	
205	2,000	27	43	22	4,780	0.628	24.5	
206	2,000	26	45	15	4,341	0.578	23.5	
207	2,000	38	52	16	4,635	0.658	26.5	
208	2,000	25	38	18	4,100	0.497	26.0	

inside

JW062 0-4" plot #2
outside

JW062 5-8" plot #1
inside

JW062 5-8" plot #1
outside

JW062 5-8" plot #2
inside

JW062 5-8" plot #2
outside