



Ford Motor Company – RIC

May 9, 2016

2101 Village Rd., MD 1049

Dearborn, MI 48121

To: Whom it may concern:

Regarding: Amendment to Materials License 21-35113-01 & request letter (ML16041A497)

This letter is in response to reference control No. 590134 requesting a change to the current license possessed by Ford Motor Company – RIC. Our request was sent on February 10, 2016 had included current license limitations and requested projected use limits for the revised license.

Currently the lab is not in operation but is also not being dismantled nor are we closing out the area of use (aou). Future projected Research and Development (R&D) work is pending the requested change to the license. There is currently no known contamination to the lab and all previously tested materials have been removed from the lab and storage and have been properly disposed of using an approved disposal vendor (see attachments).

If you have any questions, please contact the Radiation Safety Officer at (313)323-1533 between 7am and 3:30pm M-F EST or via e-mail at slarkins@ford.com.

Brian Nottmeier (Director)

A handwritten signature in black ink, appearing to be "BN" followed by a stylized flourish.

Scott Larkins (RSO)

A handwritten signature in black ink, appearing to be "Scott Larkins" in a cursive style.

Taylor, Tiresha

From: Forster, Sara
Sent: Tuesday, May 10, 2016 11:41 AM
To: Taylor, Tiresha
Subject: FW: Ford NRC license amendment
Attachments: Signed change letter.pdf

Thank you for printing this! - Sara

From: Larkins, Scott (S.R.) [mailto:slarkins@ford.com]
Sent: Monday, May 09, 2016 1:05 PM
To: Forster, Sara <Sara.Forster@nrc.gov>
Subject: [External_Sender] Ford NRC license amendment

Sara,

This has bounced back twice to me know. I'm going to send a series of e-mails because I guessing my file is too large for your system.

Scott Larkins

Sr. Safety Engineer
Ford Motor Company - Research & Innovation Center
2101 Village Rd, MD 1049
Dearborn, MI 48121
Desk: 313-323-1533
Cell: 313-790-2726
Fax: 313-337-1810
CL, FCC, GTL, Norwood Annex, Palo Alto, RIC
slarkins@ford.com



[illegible]

FORM 541 UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste		ADCO SERVICES, INC.		1. MANIFEST TOTALS								2. MANIFEST NUMBER 15-0035 L 3. PAGE 1 OF 1 PAGE(S) 4. SHIPPER NAME FORD MOTOR COMPANY SHIPMENT ID NUMBER 62152	
		NUMBER OF PACKAGES/DISPOSAL CONTAINERS 3	NET WASTE VOLUME 0.4531 m3 16.0000 R3	NET WASTE WEIGHT 276.6914 kg 610.0000 lb	SPECIAL NUCLEAR MATERIAL (grams)				Total NP				
					U-233	U-235	Pu	SOURCE (kg) NA					
					NP	NP	NP						
			ACTIVITY					(kg) NA					
ALL NUCLIDES		TRITIUM	C-14	Tc-99	I-129	(lbs) NA							
MBq	2.2200E+02	NP	NP	NP	NP								
mCi	6.0000E+00	NP	NP	NP	NP	NP	NP						

DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
5. CONTAINER IDENTIFICATION NUMBER/ S.C. TRANSPORT PERMIT NUMBER	6. CONTAINER DESCRIPTION (See Note 1 & Note 1A)	7. VOLUME (m3) (R3)	8. WASTE AND CONTAINER WEIGHT (kg) (lb)	9. SURFACE RADIATION LEVEL (mSv/hr) (mrem/hr)	10. SURFACE CONTAMINATION (MBq/100 cm2) (dpm/100cm2)		11. WASTE DESCRIPTOR (See Note 2 & Note 2A)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3) (FT3)	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3 & Note 3A)	14. CHEMICAL DESCRIPTION CHELATING AGENT WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL, OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT									
					ALPHA	BETA-GAMMA					RADIONUCLIDES	MBq	mCi							
15-0035-01/02152 <i>KJS</i>	3	0.0283 <i>KJS</i>	4.6699 <i>KJS</i>	4.0000E-04 <i>KJS</i>	NP	NP	59-NONCOMPACTIBLE METAL H. <i>KJS</i>	0.0283 <i>KJS</i>	400-400 <i>KJS</i>	NON-COMPACTIBLE METAL TARISSANP <i>KJS</i>	0	Co-67 <i>KJS</i>	1.4000E+02 <i>KJS</i>	4.0000E+00 <i>KJS</i>	NA					
15-0036-02/62152	4	0.2124 <i>KJS</i>	90.7185 <i>KJS</i>	4.0000E-03 <i>KJS</i>	NP	NP	39-H	0.2124 <i>KJS</i>	62 100	RAGS/NP	0	Co-57 <i>KJS</i>	3.7000E+01 <i>KJS</i>	1.0000E+00 <i>KJS</i>	NA					
15-0036-03/62152	4	0.2124 <i>KJS</i>	181.4370 <i>KJS</i>	4.0000E-04 <i>KJS</i>	NP	NP	24-J	0.2124 <i>KJS</i>	100 100	USED OIL/NP	0	Co-57 <i>KJS</i>	3.7000E+01 <i>KJS</i>	1.0000E+00 <i>KJS</i>	NA					
Shipment Totals		0.4248 <i>KJS</i>	272.156 <i>KJS</i>	4.0000E-02 <i>KJS</i>	NP	NP		7.5000 <i>KJS</i>				2.2200E+02 <i>KJS</i>	6.0000E+00 <i>KJS</i>							

Note 1: Container Description Codes. For containers/waste requiring disposal in approved structural over-packs the numerical code must be followed by "OP."

- | | |
|-------------------------------|---|
| 1. Wooden Box or Crate | 9. Demineralizer |
| 2. Metal Box | 10. Gas Cylinder |
| 3. Plastic Drum or Pail | 11. Bulk, Unpackaged Waste |
| 4. Metal Drum or Pail | 12. Unpackaged Components |
| 5. Metal Tank or Liner | 13. High Integrity Container |
| 6. Concrete Tank or Liner | 19. Other. Describe in Item 6, or additional page |
| 7. Polyethylene Tank or Liner | |
| 8. Fiberglass Tank or Liner | |

Note 1A: Barnwell Specific Container Description Codes. (Choose one code as may be applicable.)

- A High Integrity Container - Poly
 B High Integrity Container - Poly with Steel Shell
 C High Integrity Drum Overpack - Poly
 D High Integrity Container - Stainless Steel
 E High Integrity Container - Fiberglass
 F Liner - Steel

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

- | | | |
|----------------------------|----------------------------------|--|
| 20. Charcoal | 29. Demolition Rubble | 38. Evaporator Bottoms/Sludges/Concentrates |
| 21. Incinerator Ash | 30. Cation Ion-exchange Media | 39. Compactible Trash |
| 22. Soil | 31. Anion Ion-exchange Media | 40. Noncompactible Trash |
| 23. Gas | 32. Mixed Bed Ion-exchange Media | 41. Animal Carcass |
| 24. Oil | 33. Contaminated Equipment | 42. Biological Material (except animal carcass) |
| 25. Aqueous Liquid | 34. Organic Liquid (except oil) | 43. Activated Material |
| 26. Filter Media | 35. Glassware or Labware | 59. Other. Describe in Item 11, or additional page |
| 27. Mechanical Filter | 36. Sealed Source/Device | |
| 28. EPA or State Hazardous | 37. Paint or Plating | |

NOTE 2A: Barnwell Specific Waste Descriptor Codes. (Choose all applicable codes.)

- G Dewatered
 H Solid
 I Combustible
 J Non-combustible
 K Air Filtration Filters
 L Asbestos

Note 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume.) For media meeting disposal site structural stability requirements, the numerical code must be followed by "S." and the media vendor and brand name must also be identified in Item 13. Code 100=NONE REQUIRED.

- | | |
|--------------------|--|
| 90. Cement | 94. Vinyl Ester Styrene |
| 91. Concrete | 99. Other. Describe (encapsulation) in Item 13, or additional page |
| 92. Bitumen | 100. None Required. |
| 93. Vinyl Chloride | |

Note 3A: Barnwell Specific Solidification and Stabilization Media Codes. (Choose this code if applicable)

- M Wax Binder

FORM 542		ADCO SERVICES, INC.		1. WASTE COLLECTOR/PROCESSOR						2. MANIFEST NUMBER						
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST MANIFEST INDEX AND REGIONAL COMPACT TABULATION List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators.				NAME FORD MOTOR COMPANY			SHIPPER USE ONLY			15-0035 L						
				IDENTIFICATION NUMBER T-4L003-L15												
				SHIPPING DATE 6/24/2015			3. PAGE 1 OF 1 PAGE(S)									
4. SC TRANSPORT PERMIT NUMBER	5. GENERATOR NAME AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	6A. WASTE DESCRIPTION (NOMENCLATURE)	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME (m3) (ft3)	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P = PROCESSED C = COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL								
								A. SOURCE MATERIAL (kg) (lb)		B. SNM (g)	C. ACTIVITY (MBq) (mCi)		D. VOLUME (m3) (ft3)		E. WEIGHT (lb)	F. MAXIMUM PACKAGE RADIATION LEVEL (mrem/hr)
62152 39	FORD MOTOR COMPANY 944-45972492 517-206-1392 KJS	FOR THE ACCT OF ADCO SERVICES 20000 ROTUNDA DRIVE DEARBORN, MI 48124	NONCOMPACTIBLE METAL		15-0035 L Received: 06/24/2015	C	MI	0.0000E+00	0.0000E+00	0.0000E+00	2.2200E+02	6.0000E+00	0.4531	15.0000	600	0.0000E+00
41A			NONCOMPACTIBLE METAL													
24			NONCOMPACTIBLE METAL													
TOTALS OF ALL PAGES (FORMS 542 AND 542A)								0.0000E+00	0.0000E+00	0.0000E+00	2.2200E+02	6.0000E+00	0.4531	15.0000	610.0000	N/A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT

For Manifest # 15-0035 L
ADCO SERVICES, INC.

<u>Isotope</u>	Total Activity	
	(MBq)	(mCi)
Co-57	2.2200E+02	6.0000E+00

<p>Note 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks the numerical code must be followed by "OP."</p> <p>1. Wooden Box or Crate 2. Metal Box 3. Plastic Drum or Pail 4. Metal Drum or Pail 5. Metal Tank or Liner 6. Concrete Tank or Liner 7. Polyethylene Tank or Liner 8. Fiberglass Tank or Liner</p> <p>9. Demineralizer 10. Bulk, Unpackaged Vender 11. Unpackaged Components 12. High Integrity Container 13. High Integrity Container Other. Describe in Item 6, or additional page</p>	<p>Note 1A: Barnwell Specific Container Description Codes. (Choose one code as may be applicable.)</p> <p>A High Integrity Container - Poly B High Integrity Container - Poly with Steel Shell C High Integrity Drum Overpack - Poly D High Integrity Container - Stainless Steel E High Integrity Container - Fiberglass F Liner - Steel</p>	<p>NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)</p> <p>20. Charcoal 21. Incinerator Ash 22. Soil 23. Gas 24. Oil 25. Aqueous Liquid 26. Filter Media 27. Mechanical Filter 28. EPA or State Hazardous</p> <p>29. Demolition Rubble 30. Cation Ion-exchange Media 31. Anion Ion-exchange Media 32. Mixed Bed Ion-exchange Media 33. Contaminated Equipment 34. Organic Liquid (except oil) 35. Glassware or Labware 36. Sealed Source/Device 37. Paint or Plating</p>	<p>NOTE 2A: Barnwell Specific Waste Descriptor Codes. (Choose all applicable codes.)</p> <p>G Dehydrated H Solid I Combustible J Non-combustible K Air Filtration Filters L Asbestos</p> <p>38. Evaporator Bottoms/Sludges/Concentrates 39. Compactible Trash 40. Noncompactible Trash 41. Animal Carcass 42. Biological Material (except animal carcasses) 43. Activated Material 44. Other. Describe in Item 11, or additional page</p>	<p>Note3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume.) For media meeting disposal site structural stability requirements, the numerical code must be followed by "-S," and the media vendor and brand name must also be identified in Item 13. Code 100=NONE REQUIRED.</p> <p>90. Cement 91. Concrete 92. Bitumen 93. Vinyl Chloride</p> <p>94. Vinyl Ester Styrene 99. Other. Describe in Item 13, or additional page 100. None Required.</p>	<p>Note 3A: Barnwell Specific Solidification and Stabilization Media Codes. (Choose this code if applicable)</p> <p>M Wax Binder</p>
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FORM 542		ADCO SERVICES, INC.		1. WASTE COLLECTOR/PROCESSOR						2. MANIFEST NUMBER			
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST <small>MANIFEST INDEX AND REGIONAL COMPACT TABULATION</small>				NAME			SHIPPER USE ONLY			15-0065 L			
				FORD MOTOR COMPANY									
				IDENTIFICATION NUMBER									
				T-IL003-L15									
List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators.				SHIPPING DATE						11/24/2015			
										3. PAGE 1 OF 1 PAGE(S)			

4. SC TRANSPORT PERMIT NUMBER	5. GENERATOR NAME AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	6A. WASTE DESCRIPTION (NOMENCLATURE)	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME		8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P = PROCESSED C = COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL								
				(m3)	(R3)				A. SOURCE MATERIAL		B. SNM	C. ACTIVITY		D. VOLUME		E. WEIGHT	F. MAXIMUM PACKAGE RADIATION LEVEL (mrem/hr)
									(kg)	(lb)	(g)	(MBq)	(mCi)	(m3)	(ft3)	(lb)	
62152 41A	FORD MOTOR COMPANY 517-206-1382	FOR THE ACCT OF ADCO SERVICES 20000 ROYUNDA DRIVE DEARBORN, MI 48124 <i>1601 Village Road</i>	NONCOMPACTIBL E METAL			15-0065 L Received: 11/24/2015	C	MI	0.0000E+00	0.0000E+00	0.0000E+00	3.7000E+01	1.0000E+00	0.0198	0.7000	10	0.0000E+00
TOTALS OF ALL PAGES (FORMS 542 AND 542A)									0.0000E+00	0.0000E+00	0.0000E+00	3.7000E+01	1.0000E+00	0.0198	0.7000	10.0000	N/A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT

For Manifest # 15-0065 L
ADCO SERVICES, INC.

<u>Isotope</u>	Total Activity	
	(MBq)	(mCi)
Co-57	3.7000E+01	1.0000E+00

Radiation Chain of Custody

Date	Name of Material(s) Transferred	Storage from Location	Storage to Location	Name from (print)	Name from (sign)	Name to (print)	Name to (sign)
11/9/14	metal shims + tubes	1616	1422	Scott Larkin	Scott L.	Rob Zdrodowski	Rob Zdro
12/9/14	7 shims / 7 tappets	1616 ¹⁴²²	1616	Rob Zdrodowski	RZdro	Scott Larkin	Scott L.
12/9/14	4 fols	1616 ¹⁴²²	1616	Rob Zdrodowski	RZdro	Scott Larkin	Scott L.
/ /	/ / / / /	/ / /	/ / /	/ / / / /	/ / / / /	/ / / / /	/ / / / /
12/12/14	2 Loops / 7 tappets	1616	1422	Scott Larkin	Scott L.	Rob Zdrodowski	RZdro
12/12/14	2 fols	1616	1422	Scott Larkin	Scott L.	Rob Zdrodowski	RZdro
11/23/15	7 tubes / 7 tappets	1422	1616	Rob Zdrodowski	Rob Zdro	Scott Larkin	Scott L.
11/24/15	above listed	1616	Disposal	Scott Larkin	Scott L.	Kevin Smith	Kevin
11/24/15	above listed	1616	Disposal / Recycling facility	Kevin Smith	Kevin	Jim Bell	Jim Bell
11/24/15							