

Prelude
THERAPEUTICS

200 Power Mill Road Experimental
Station E400/3213
Wilmington, DE 19803

January 15, 2018

VIA FEDERAL EXPRESS

Mr. Dennis Lawyer
Health Physicist
Licensing Assistance Team
US Nuclear Regulatory Commission Region I
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

Subject: **Mail Control No. 601936**
Response to Correspondence dated January 8, 2018
License No. 0735398-01 *103039018*
Prelude Therapeutics Incorporated
Newark, Delaware

Dear Mr. Lawyer:

In reference to your e-mail dated January 8, 2018, Prelude provides the following responses:

1. NRC: You state in section 3.5 of your report that wipe data was printed in units of cpm and dpm/100cm² (surface activity) as seen in the MicroBeta printouts in Attachments A and B. However, the printout data was not included in these attachments. Please provide the individual count data from the wipes. Please include any quality assurance printouts for any daily checks associated with the MicroBeta.

Prelude Response: See attached.

2. NRC: Please confirm that the only area of use was the biology lab. Please provide survey data of any other areas of use such as waste storage rooms.

Prelude Response: Yes, the only area of RAM use was the biology lab. RAM waste as stored in a locked cabinet within the biology lab. No RAM was used or stored anywhere else in the facility.

3. NRC: In your application dated December 23, 2016, you stated that you would dispose of material in the sanitary sewer. It is not clear that the disposal area was surveyed. Please provide surveys or state which wipes were performed on drains used to dispose of liquid material.

Prelude Response: Only solid waste and LSC waste was generated. Both were disposed via a reputable vendor. No drain disposal of RAM was performed.

REC'D 101718 PM 0124

NOTED FROM MAIL ROOM

4. NRC: Prior to termination of a license, 10 CFR 30.35(g), 30.36(k)(4) and 30.51 require that you submit certain records to the NRC. As you are decommissioning a facility, please submit the following records associate with the facility, or explain why such records are not applicable to your licensed activities.

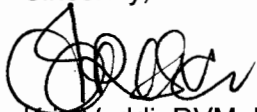
- a. for unsealed materials with half-lives greater than 120 days, records for disposal made pursuant to 10 CFR 20.2002 (alternate disposal procedures, including burial authorized prior to January 28, 1981), 20.2003 (disposals to the sanitary sewerage system), 20.2004 (incineration of wastes), 20.2005 (disposal of specific wastes including liquid scintillation cocktail and animal tissue), and 20.2103(b)(4), evaluations of effluent releases.

Prelude Response: Prelude had a total of three RAM waste pickups by Veolia: the first 0.47 mCi of 3H on March 24, 2017, the second 1.68 mCi of 3H on June 5, 2017, and the third and final of 3.04 mCi of 3H on November 22, 2017 for a total of 5.19 mCi disposed. No drain disposal, burial, or other methods of waste disposal were utilized. See attached manifests.

- b. records important for decommissioning as described in 30.35(g). Examples of such records include but are not limited to: records of contamination, identifying the radionuclides, quantities and concentrations; as-built drawings and modifications of structures and equipment in restricted areas and locations of inaccessible contamination such as buried pipes; a single list, updated at least every 2 years, of areas to which access is limited for the purpose of radiation protection (restricted areas); and records related to the provision of financial assurance.

Prelude Response: As shown above, RAM use was minimal and limited to only one lab and only one authorized user. Licensed activities occurred for less than one calendar year (from February 16, 2017 to November 21, 2017). A map of the facility was provided with the initial license application and the Final Status Survey. There were no changes made to the facility in the months between. No areas of contamination were found. No spills resulting in fixed contamination occurred during the 9 months of use.

Sincerely,



Kris Vaddi, DVM, Ph.D.
CEO and Founder
Prelude Therapeutics Incorporated
Phone: 302-644-5400
Email: kv@preludetx.com

Enclosure

cc: M. Wang, Prelude
J. Leonard, IES

Attachment A_Facility Wipe Results
c:\users\administrator\prelude therapeutics\microbeta - raw output\wipe
test\decommission lab LST 11212017.txt

PROTOCOL INFORMATION:

=====

Name: wipe test
Id: 10

General:

Labels: H-3, C-14
Cassette type: 24 wells, 4 by 6
Quench correction: Off
Assay type: Normal
Paralux used: No
Counting time: 1 min
Detector norm.: PE C14 H3 normalization (52)
Status: n

Corrections:

BGND corr. : Normalization

Counting control:

Precision: 0.20
Repeats: 1
Cycles: 1
Cycle delay: 0
Plate delay: 0
Barcode delay: 0
Cooldown delay disabled
Plate orientation: Normal

Plate map:

Cassette 1 rows: ABCD
Row A: 1 1 1 1 1 1
Row B: 1 1 1 1 1 1
Row C: 1 1 1 1 1 1
Row D: 1 1 1 1 1 1

Other:

Detector setup: Normal
Window 1: 5 - 360
Window 2: 150 - 650
Window 3: 1 - 1

RUN INFORMATION:

=====

Counting protocol no: 10
Name: wipe test
Detector normalization protocol no: 52
MicroBeta² serial number: 5129231

Tue 21-Nov-2017 12:30

COLUMNS:

=====

POS	CCPM1	H3_DPM	CCPM2	C14_DPM	CCPM3	P32_DPM	SQP(I)
A01	35	68.1	27	97.7	0	86.9	333.2
A02	9	26.0	6	40.1	0	35.6	351.2
A03	17	42.1	17	63.9	0	56.8	319.2
A04	14	32.1	7	46.3	0	41.2	316.0
A05	10	24.0	3	35.0	0	31.1	0.0
A06	12	32.0	10	48.8	0	43.4	327.3

Attachment A_Facility Wipe Results							
B01	0	22.0	22	50.1	0	44.5	423.3
B02	21	46.1	17	67.7	0	60.1	311.1
B03	0	22.0	18	46.4	0	41.2	395.3
B04	13	26.0	1	35.1	0	31.2	330.3
B05	8	20.0	0	28.8	0	25.6	0.0
B06	29	48.1	9	62.6	0	55.7	257.9
C01	0	22.0	14	37.6	0	33.4	0.0
C02	0	24.0	25	48.8	0	43.4	392.8
C03	0	24.0	17	42.6	0	37.8	370.0
C04	13	48.2	25	71.5	0	63.5	314.1
C05	0	8.0	7	18.8	0	16.7	0.0
C06	7	36.0	17	53.8	0	47.8	303.5
D01	6	24.0	3	30.0	0	26.7	0.0
D02	4	22.0	2	27.5	0	24.5	0.0
D03	0	12.0	14	28.8	0	25.6	0.0
D04	0	28.1	19	47.6	0	42.3	391.9
D05	0	14.0	4	21.3	0	18.9	0.0
D06	0	16.0	9	27.5	0	24.5	0.0
Total	count	rate	1:	199.6	CCPM		
			2:	292.0	CCPM		

END

Attachment A_Lab wipe Results

c:\users\administrator\prelude therapeutics\microbeta - raw output\wipe
test\decommission hallway LST 11212017.txt

PROTOCOL INFORMATION:
=====

Name: Wipe test
Id: 10

General:

Labels: H-3, C-14
Cassette type: 24 wells, 4 by 6
Quench correction: Off
Assay type: Normal
Paralux used: No
Counting time: 1 min
Detector norm.: PE C14 H3 normalization (52)
Status: n

Corrections:

BGND corr. : Normalization

Counting control:

Precision: 0.20
Repeats: 1
Cycles: 1
Cycle delay: 0
Plate delay: 0
Barcode delay: 0
Cooldown delay disabled
Plate orientation: Normal

Plate map:

Cassette 1 rows: ABC
Row A: 1 1 1 1 1 1
Row B: 1 1 1 1 1 1
Row C: 1 1 1 1 1 1
Row D: 0 0 0 0 0 0

Other:

Detector setup: Normal
Window 1: 5 - 360
Window 2: 150 - 650
Window 3: 1 - 1

RUN INFORMATION:
=====

Counting protocol no: 10
Name: Wipe test
Detector normalization protocol no: 52
MicroBeta² serial number: 5129231

Tue 21-Nov-2017 13:17

COLUMNS:
=====

POS	CCPM1	H3_DPM	CCPM2	C14_DPM	CCPM3	P32_DPM	SQP(I)
A01	0	16.0	10	33.8	0	30.1	441.5
A02	0	26.1	22	53.9	0	47.9	414.5
A03	11	22.1	0	30.1	0	26.8	0.0
A04	8	20.1	0	28.9	0	25.7	0.0
A05	10	26.1	5	38.9	0	34.6	352.4
A06	12	32.1	10	48.9	0	43.5	311.5

Attachment A_Lab Wipe Results							
B01	32	58.1	18	80.2	0	71.3	291.6
B02	0	18.1	12	37.6	0	33.4	480.4
B03	25	44.2	9	59.0	0	52.4	268.0
B04	18	38.1	11	55.2	0	49.0	326.5
B05	29	52.2	14	71.5	0	63.5	324.7
B06	22	40.1	7	53.9	0	47.9	297.9
C01	4	26.1	8	36.4	0	32.3	308.0
C02	1	40.1	30	68.9	0	61.3	374.5
C03	34	66.2	21	85.2	0	75.8	238.2
C04	23	46.2	9	56.4	0	50.2	206.2
C05	15	48.2	22	69.0	0	61.3	305.9
C06	4	36.1	20	56.4	0	50.2	328.5
Total count rate	1:	248.5	CCPM				
	2:	229.8	CCPM				
END							



SHIPPING DOCUMENT	1. Generator ID Number CESOG	2. Page 1 of 1	3. Emergency Response Phone (877) 818-0087	4. Shipping Document Tracking Number ZZ 00557996		
5. Generator's Name and Mailing Address PRELUDE THERAPEUTICS INC. 550 S COLLEGE AVENUE, SUITE 110 STAR CAMPUS II NEWARK, DE 19713						
Generator's Phone: 302 273-3365						
6. Generator's Site Address (if different than mailing address) SAME						
8. Transporter 1 Company Name VEOLIA ES TECHNICAL SOLUTIONS			U.S. EPA ID Number N J D 0 8 0 6 3 1 3 6 9			
7. Transporter 2 Company Name S J TRANSPORTATION CO INC			U.S. EPA ID Number N J D 0 7 1 6 2 9 9 7 6			
8. Designated Facility Name and Site Address ALARON NUCLEAR SERVICES 2138 STATE ROUTE 18 WAMPUM, PA 16157			U.S. EPA ID Number P A D 9 8 7 4 0 0 1 5 7			
Facility's Phone: 724 535-5777						
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	X	1. UN2910, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE- LIMITED QUANTITY OF MATERIAL, 7	1 D F	16	P	NONE RW399
		2.				
		3.				
		4.				
14. Special Handling Instructions and Additional Information ER Service Contracted by VESTS - 1) DRY ACTIVE WASTE (H3)						
15. GENERATOR S/OFFEROR S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Officer's Printed/Typed Name Min Wang		Signature 		Month Day Year 10 6 17		
INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____					
	17. Transporter Acknowledgment of Receipt of Shipment					
TRANSPORTER	Transporter 1 Printed/Typed Name Salvatore A. Greco		Signature 		Month Day Year 10 05 17	
	Transporter 2 Printed/Typed Name E. Hook		Signature 		Month Day Year 10 19 17	
DESIGNATED FACILITY	18. Discrepancy					
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
	Shipping Document Tracking Number: _____					
	18b. Alternate Facility (or Generator) U.S. EPA ID Number _____					
	Facility's Phone: _____					
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____						
19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)						
1. _____		2. _____		3. _____		4. _____
20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a						
Printed/Typed Name Jimmy Leese		Signature 		Month Day Year 10 12 17		

DESIGNATED FACILITY TO GENERATOR

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to InfoCollections@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE06-10302, (3150-0164), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 540 (01-2014)		U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		5. SHIPPER - NAME AND FACILITY PRELUDE THERAPEUTICS INC. 580 S. COLLEGE AVENUE SUITE 110 NEWARK, DE 19713		SHIPPER ID NUMBER CESGG <input type="checkbox"/> COLLECTOR <input type="checkbox"/> PROCESSOR <input checked="" type="checkbox"/> GENERATOR TYPE (Specify) M		7. NRC FORM 540 AND 540A PAGE 1 OF 1 PAGE(S) NRC FORM 541 AND 541A PAGE(S) NRC FORM 542 AND 542A None PAGE(S) ADDITIONAL INFORMATION None PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages) ZZ00557996							
1. EMERGENCY TELEPHONE NUMBER 877-818-0087 (Include Area Code)				USER PERMIT NUMBER NA		SHIPMENT NUMBER		9. CONSIGNEE - Name and Facility Address Veolia ES Alaron, LLC d/b/a/ Alaron Nuclear Services PA State Route 18 & Park St Wampum, Pa 16157		CONTACT Dan D'Amico TELEPHONE NUMBER (Include Area Code) 724-535-5777							
ORGANIZATION VESTS				CONTACT MIN WANG		TELEPHONE NUMBER (Include Area Code) 302-273-3385		SIGNATURE - Authorized consignee acknowledging waste receipt <i>[Signature]</i>		DATE 6-12-17							
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 1		6. CARRIER - Name and Address Transporter #1 Veolia ES Technical Solutions, L.L.C. 1 Eden Lane Florence, NJ 07836 Contact: Dispatch		Transporter #2 S J Transportation Company US Route 40 Woodstown, NJ 08098 Contact: Dispatch		EPA ID Number #1 NJD080631369 #2 NJD071639975 Ship Date: 6/5/17 Telephone a1: 973-347-7111 #2: 856-769-2711		10. CERTIFICATION This is to certify that the herein-named materials are acceptable for disposal, are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the Commission.							
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number				EPA MANIFEST NUMBER		SIGNATURE - Authorized carrier acknowledging waste receipt <i>[Signature]</i>		DATE 6/5/17		AUTHORIZED SIGNATURE <i>[Signature]</i>							
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY (MBq)		17. LSA/SCO CLASS		18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE	
UN 2910, Radioactive material, excepted package-limited quantity of material, 7		NA		NA		SOLID ORGANIC		H-3		6.2160E+01		NA		16 LBS; 1.89 FT3		PJ 2833646000 001-01	
FOR CONSIGNEE USE ONLY																	
17-0761																	

APPROVED BY OMB: NO. 3150-0186
EXPIRES: 12/31/2016

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the FOIA, Privacy, and Information Collections Branch (T-8 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollections.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NIOSH-10282, (3150-0186), Office of Management and Budget, Washington, DC 20503. If a waste used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 541 (01-2014) U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste										1. MANIFEST TOTALS				2. MANIFEST NUMBER ZZD0557998					
NUMBER OF PACKAGES/ DISPOSAL CONTAINERS		NET WASTE VOLUME (m ³)	NET WASTE WEIGHT (kg)	SPECIAL NUCLEAR MATERIAL (grams)				3. PAGE <u>1</u> OF <u>1</u> PAGE(S)											
1		0.0535	7.2575	U-233	U-235	Pu	Total	4. SHIPPER NAME PRELUDE THERAPEUTICS INC.											
1		0.0535	7.2575	NP	NP	NP	NP	SHIPPER I.D. NUMBER CESQG											
ALL NUCLIDES		TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)													
6.2160E+01		6.2160E+01	NP	NP	NP	NA													
DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m ³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (uSv/hr) (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm ²)		11. PHYSICAL DESCRIPTION		12. CHEMICAL DESCRIPTION		13. RADIOLOGICAL DESCRIPTION		14. WASTE CLASSIFICATION						
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m ³)	13. SOLIDIFICATION, STABILIZATION, MEDIA (See Note 3)	14. CHEMICAL FORM/ CHELATING AGENT	15. WEIGHT % CHELATING AGENT IF > 0.1%	16. INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	17. WASTE CLASSIFICATION						
PJ 2833648000 001411/CESQG	1x Fiber drum	0.0535	7.2575	<5.0000E+00	<3.6740E-05	<3.6740E-04	39	0.0535	100 100	ORGANIC/NP	NP	H-3 6.2160E+01	NA						
												Total 6.2160E+01							
Shipment Totals		0.0535	7.2575									6.2160E+01							

Note 1: Container Description Codes. For containers/ waste requiring disposal in approved structural overpacks 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 5, or additional page |
| 7. Polyethylene Tank or Liner | |
| 8. Fiberglass Tank or Liner | |

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. Compacible Trash |
| 22. Soil | 31. Anion Ion-exchange Media | 40. Noncompacible 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 Paving | |

Note 3: For solidification media that meet disposal site structural stability requirements, the numerical code must be followed by "S." For all solidification media, the vendor (manufacturer) and brand name must also be identified in Item 13. Code 100=NONE REQUIRED.

Sorption

- | | | | | |
|--------------------------|------------------|--------------------|-----------------|---|
| 60. Speedi Dri | 64. Safe T Sorb | 69. Chemasil 30 | 74. Petrosel | 69. Other |
| 61. Celelom | 65. Safe N Dri | 70. Chemasil 50 | 75. Petrosel II | 90. Cement |
| 62. Floor Dry/ Superfine | 66. Florco | 71. Chemasil 3030 | 76. Aquaset | 91. Concrete |
| 63. Hi Dri | 67. Florco X | 72. Dicapert HP200 | 77. Aquaset II | 99. Other Describe in item 13, or additional page |
| | 68. Solid A Sorb | 73. Dicapert HP500 | | 92. Bitumen |
| | | | | 93. Vinyl Chloride |
| | | | | 100. None Required |

Solidification

- | |
|---|
| 94. Vinyl Ester Styrene |
| 95. Other Describe in item 13, or additional page |



SHIPPING DOCUMENT		1. Generator ID Number		2. Page 1 of 3		3. Emergency Response Phone		4. Shipping Document Tracking Number ZZ00650391		
5. Generator's Name and Mailing Address						Generator's Site Address (if different than mailing address)				
Generator's Phone:										
6. Transporter 1 Company Name						U.S. EPA ID Number				
7. Transporter 2 Company Name						U.S. EPA ID Number				
8. Designated Facility Name and Site Address						U.S. EPA ID Number				
Facility's Phone: 724 535-5777 LARCH NUCLEAR SERVICES 2138 STATE ROUTE 16 WAMPUM, PA 15387										
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))				10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Codes
						No.	Type			
	1.	1. RADIOACTIVE MATERIAL, G. FORMERLY USED IN NUCLEAR REACTOR								
	2.									
	3.									
14. Special Handling Instructions and Additional Information										
15. GENERATOR S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations										
Generator's/Offoror's Printed/Typed Name: MIN WANG Signature: <i>[Signature]</i> Month: Day: Year:										
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:									
	17. Transporter Acknowledgment of Receipt of Shipment									
	Transporter 1 Printed/Typed Name: Salvatore A. Sueno Signature: <i>[Signature]</i> Month: 11 Day: 22 Year: 17 Transporter 2 Printed/Typed Name: BRIAN FORD Signature: <i>[Signature]</i> Month: 11 Day: 28 Year: 17									
DESIGNATED FACILITY	18. Discrepancy									
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
	18b. Alternate Facility (or Generator) Shipping Document Tracking Number: U.S. EPA ID Number									
	Facility's Phone:									
	18c. Signature of Alternate Facility (or Generator) Month: Day: Year:									
19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)										
20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in item 18a										
Printed/Typed Name: Francis Owens Signature: <i>[Signature]</i> Month: 11 Day: 17 Year: 17 ASAC 17-0798										

APPROVED BY OMB: NO. 3150-0164
EXPIRES: 12/31/2016

Estimated burden per response to comply with this information collection request: 45 minutes. This unit
regarding burden estimate to the FOIA, Privacy and Information Collections Branch (7-5 FR3), U.S. Nuclear
Affairs, NEOS-10252, (3150-0164), Office of Management and Budget, Washington, DC 20503. If a means to
respond to the information collection.

NRC FORM 540 (01-2014)		U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		5. SHIPPER - NAME AND FACILITY PRELUDE THERAPEUTICS INC. 550 S. COLLEGE AVENUE SUITE 110 NEWARK, DE 19713		SHIPPER I.D. NUMBER			
1. EMERGENCY TELEPHONE NUMBER 877-818-0087				USER PERMIT NUMBER NA		TELEPHONE NUMBER		Dan D'Amico TELEPHONE NUMBER 724-535-5777	
ORGANIZATION VESTS				CONTACT MIN WANG				SIGNATURE - Addressee-consignee acknowledging receipt	
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 2		6. CARRIER - Name and Address Transporter #1 Veeva ES Technical Solutions, L.L.C. 1 Eden Lane Flanders, NJ 07836 Contact: Dispatch		EPA NJ0071629976 Ship 11/27/17 Telephone		10. CERTIFICATION ible reg	
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number		EPA MANIFEST NUMBER		SIGNATURE - Authorized carrier acknowledging receipt Date 11/27/17		AUTHORIZED SIGNATURE Date 11/27/17		DATE 11/27/17	
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (including proper shipping name, hazard class, UN ID number, and any additional information)				12. DOT LABEL "RADIOACTIVE"		13. TRANSP INDE		14. PHYSICA CHEMICAL	
UN 2910, Radioactive material, excepted package-limited quantity of material, 7				NA		NA		SOLID ORGANIC	
UN 2910, Radioactive material, excepted package-limited quantity of material, 7				NA		NA		SOLID ORGANIC	
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NRC FORM 540 (1-2014)



SHIPPING DOCUMENT		1. Generator ID Number C E S Q G		2. Page 1 of 1		3. Emergency Response Phone (877) 818-0087		4. Shipping Document Tracking Number ZZ 00604757		
5. Generator's Name and Mailing Address PRELUDE THERAPEUTICS INC. 550 S COLLEGE AVENUE, SUITE 110 STAR CAMPUS II NEWARK, DE 19713										
Generator's Phone: 302 273-3365										
6. Generator's Site Address (if different than mailing address) SAME										
6. Transporter 1 Company Name VEOLIA ES TECHNICAL SOLUTIONS								U.S. EPA ID Number N J D 0 8 0 6 3 1 3 6 9		
7. Transporter 2 Company Name S J TRANSPORTATION CO INC.								U.S. EPA ID Number N J D 0 7 1 6 2 9 9 7 6		
8. Designated Facility Name and Site Address ALARON NUCLEAR SERVICES 2138 STATE ROUTE 18 WAMPUM, PA 16157								U.S. EPA ID Number P A D 9 8 7 4 0 0 1 5 7		
Facility's Phone: 724 535-5777										
GENERATOR	9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))				10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Codes
						No.	Type			
	X	1. UN2910, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7				1	D F	15	P	NONE RW399
		2.								
		3.								
	4.									
14. Special Handling Instructions and Additional Information ER Service Contracted by VESTS - 1) DRY ACTIVE WASTE H3										
15. GENERATOR S/OFFEROR S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.										
Generator's/Officer's Printed/Typed Name MIN WANG										
Signature <i>[Signature]</i>										
Month Day Year 10 3 2 4 7										
TRANSPORTER INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____									
	17. Transporter Acknowledgment of Receipt of Shipment									
	Transporter 1 Printed/Typed Name Schwartz A Bruno									
DESIGNATED FACILITY	Transporter 2 Printed/Typed Name RCSIPPY JR									
	Signature <i>[Signature]</i>									
	Month Day Year 10 3 1 1 7									
18. Discrepancy										
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection										
Shipping Document Tracking Number: _____										
18b. Alternate Facility (or Generator) U.S. EPA ID Number _____										
Facility's Phone: _____										
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____										
19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)										
1. _____ 2. _____ 3. _____ 4. _____										
20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a										
Printed/Typed Name Alarion Owens										
Signature <i>[Signature]</i>										
Month Day Year APR 10 3 12 017										

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DESIGNATED FACILITY TO GENERATOR

ALARON CORPORATION

17-0200

NRC FORM 540 (01-2014) U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		5. SHIPPER - NAME AND FACILITY PRELUDE THERAPEUTICS INC. 898 S. COLLEGE AVENUE SUITE 110 NEWARK, DE 19713		SHIPPER ID NUMBER CESOG <input type="checkbox"/> COLLECTOR <input type="checkbox"/> PROCESSOR <input checked="" type="checkbox"/> GENERATOR TYPE (Specify) M		7. NRC FORM 540 AND 540A PAGE 1 OF 1 1 PAGE(S) NRC FORM 541 AND 541A 4 PAGE(S) NRC FORM 542 AND 542A 1 PAGE(S) ADDITIONAL INFORMATION 1 PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages) Z200004757																			
		USER PERMIT NUMBER NA		SHIPMENT NUMBER NA		TELEPHONE NUMBER (Include Area Code) 302-273-3365		9. CONSIGNEE - Name and Facility Address Veolia ES Alaron, LLC d/b/a Alaron Nuclear Services PA State Route 18 & Park St Warrington, Pa 16157																			
ORGANIZATION VESTS		CONTACT MR WANG		10. CERTIFICATION This is to certify that the herein-named materials are acceptable for disposal, are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the Commission.		CONTACT Dan D'Elia TELEPHONE NUMBER (Include Area Code) 724-535-5777 DATE 04-03-17																					
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 1		6. CARRIER - Name and Address <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Transporter #1</td> <td>Transporter #2</td> <td>EPA ID Number</td> </tr> <tr> <td>Veolia ES Technical Solutions, L.L.C.</td> <td>S J Transportation</td> <td>#1 NUD080631369</td> </tr> <tr> <td>1 Eden Lane</td> <td>US Route 40</td> <td>#2 NUD071629976</td> </tr> <tr> <td>Flanders, NJ 07836</td> <td>Woodstown, NJ 08096</td> <td>Ship Date: 3/24/17</td> </tr> <tr> <td>Contact: Dispatch</td> <td>Contact: Dispatch</td> <td>#1: 973-347-2111</td> </tr> <tr> <td></td> <td></td> <td>#2: 856-769-2741</td> </tr> </table>		Transporter #1	Transporter #2	EPA ID Number	Veolia ES Technical Solutions, L.L.C.	S J Transportation	#1 NUD080631369	1 Eden Lane	US Route 40	#2 NUD071629976	Flanders, NJ 07836	Woodstown, NJ 08096	Ship Date: 3/24/17	Contact: Dispatch	Contact: Dispatch	#1: 973-347-2111			#2: 856-769-2741	11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information) UN 2810, Radioactive material, excepted package-limited quantity of material, 7		12. DOT LABEL "RADIOACTIVE" NA	
Transporter #1	Transporter #2	EPA ID Number																									
Veolia ES Technical Solutions, L.L.C.	S J Transportation	#1 NUD080631369																									
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4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		EPA MANIFEST NUMBER NA		13. TRANSPORT INDEX NA		14. PHYSICAL AND CHEMICAL FORM SOLID ORGANIC		15. INDIVIDUAL RADIONUCLIDES H-3																			
16. TOTAL PACKAGE ACTIVITY (MBq) 1.7390E+01		17. LSASCO CLASS NA		18. TOTAL WEIGHT OR VOLUME (Use appropriate units) 15 LBS; 1.89 FT3		19. IDENTIFICATION NUMBER OF PACKAGE PJ 2783223000 001-01																					

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