


NRC FORM 7 (02-2016) 10 CFR 110		 U. S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB: NO. 3160-0027		EXPIRES: 11/30/2018	
APPLICATION FOR NRC EXPORT OR IMPORT LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (See Instructions on Pages 4 and 5)							
PART A. FOR NRC USE ONLY			<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC			DATE RECEIVED 10/15/18	
LICENSE NUMBER XS NM 3806			DOCKET NUMBER 11006337			ADAMS ACCESSION NUMBER	
PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS, OR CONSENT REQUESTS (If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)							
1. NAME AND ADDRESS OF APPLICANT/LICENSEE Thermo Fisher Scientific 10010 Mesa Rim Road San Diego CA 92121			1a. NAME OF APPLICANT'S CONTACT Robert Barnes		1b. APPLICANT'S REFERENCE NUMBER 100301,100536,100646,101140		
			1c. PHONE NUMBER (858) 882-1356		1d. FAX NUMBER (858) 882-1356		
			1e. E-MAIL ADDRESS rob.barnes@thermofisher.com				
2. TYPE OF ACTION REQUESTED (Check One)							
<input checked="" type="checkbox"/> EXPORT (Parts B, C, E)		<input type="checkbox"/> IMPORT (Parts B, D, E)		<input type="checkbox"/> AMENDMENT/RENEWAL Current License Number:		<input type="checkbox"/> CONSENT REQUEST (Parts B, C) Current License Number:	
3. CONTRACT NUMBER(S) 2016017642 (see page 3)		4. FIRST SHIPMENT DATE 11/15/2018		5. LAST SHIPMENT DATE 6/30/2020		6. PROPOSED EXPIRATION DATE 6/30/2023	
PART C. TO BE COMPLETED FOR EXPORT LICENSES, AMENDMENTS, OR RENEWALS (If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)							
7. NAME(S) / ADDRESS(ES) OF SUPPLIERS AND/OR OTHER PARTIES TO THE EXPORT			8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S)			9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S) Korea Hydro and Nuclear Power Corporation 1655, BULGUK-RO, GYEONGJU-SI, GYEONGSANGBUK-DO, 38120 REPUBLIC OF KOREA for use at Kori 3&4, Shin Kori 1-4, Hanul 1&2, Hanbit 1&2 and Shin Hanul 1-2	
7a. FUNCTION(S) PERFORMED/SERVICE(S) PROVIDED			8a. INTERMEDIATE USE(S)			9a. ULTIMATE END USE(S) Neutron Flux Monitoring	
10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS; FOR NUCLEAR EQUIPMENT INCLUDE TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT Thirty nine (39) fission chambers each containing between 3.9 to 8.0 grams of enriched Uranium used in neutron flux monitoring systems at twelve reactors. Each fission chamber has a value of approximately \$				10a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq) 0.152 KG of Enriched Uranium		10b. MAX ENRICHMENT OR WGT % 94%	10c. MAX ISOTOPE WGT (KG) 0.143 KG of U-235
11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME) None -- United States -- 100%							

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U. S. NUCLEAR REGULATORY COMMISSION

**APPLICATION FOR NRC EXPORT OR IMPORT
LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (Continued)**

LICENSE NUMBER XJ.NM3806	DOCKET NUMBER 11006337	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC
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PART D. TO BE COMPLETED FOR IMPORT LICENSES, AMENDMENTS, OR RENEWALS
(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

12. NAME(S) / ADDRESS(ES) OF FOREIGN SUPPLIERS AND/OR OTHER PARTIES TO IMPORT	13. NAME(S) / ADDRESS(ES) OF INTERMEDIATE CONSIGNEE(S)	14. NAME(S) / ADDRESS(ES) OF ULTIMATE U. S. CONSIGNEE(S)	
12a. NRC EXPORT LICENSE NUMBER(S) (if applicable)	13a. LICENSE NUMBER(S) / EXPIRATION DATE(S)	14a. LICENSE NUMBER(S) / EXPIRATION DATE(S)	
	13b. INTERMEDIATE USE(S)	14b. ULTIMATE END USE(S)	
15. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES	15a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)	15b. MAX ENRICHMENT OR WGT %	15c. MAX ISOTOPE WGT (KG)

16. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)

PART E. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS OR CONSENT REQUEST(S)

17. ADDITIONAL INFORMATION PROVIDED ON PAGES 3, 4, AND/OR ON SEPARATE SHEETS? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17a. COPIES OF RECIPIENTS' AUTHORIZATIONS PROVIDED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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18. CERTIFICATION: I, the applicant's authorized official, hereby certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, and that all information provided is correct to the best of my knowledge.

18a. PRINT NAME AND TITLE OF AUTHORIZED OFFICIAL Robert Barnes Technical Services Manager	18b. SIGNATURE -- AUTHORIZED OFFICIAL Robert Barnes <small>Digitally signed by Robert Barnes DN: cn=Robert Barnes, o, ou, email=rob.barnes@thermofisher.com, c=US Date: 2018.10.03 11:00:59 -0700</small>	18c. DATE 3 Oct 2018
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U. S. NUCLEAR REGULATORY COMMISSION

**APPLICATION FOR NRC EXPORT OR IMPORT
LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (Continued)**

LICENSE NUMBER XSNM3802	DOCKET NUMBER 11006337	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC
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ADDITIONAL INFORMATION (Reference applicable block numbers from page 1 and/or page 2 for each entry)

Contract Numbers: 2016017642 for Shin-Kori 5&6 (24 fission chambers in eight PR/WR detector) (96 grams U)
 K170322391 for Shin Kori 3&4 (6 fission chambers in two spare PR/WR detectors) (24 grams U)
 Y170770A22 for Hanbit 1&2 (4 fission chambers in two spare SR/IR detectors) (16 grams U)
 U161175721 for Hanul 1&2 (1 dual fission chamber in one spare PR detector) (8 grams U)
 K160440651 for Kori 3&4 (2 fission chambers in one spare SR/IR detector) (8 grams U)

For flexibility to accomodate potential scheduling changes (but to not exceed licence limit):
 U09-0846-012 for Hanul 2 (any not shipped on XSNM3775)
 Y10-0050-012 for Hanbit 1 and 2 (any not shipped on XSNM3775)
 2014005983 for Shin-Hanul 1 and 2 (any not shipped on XSNM3775)