

Acceptance Review
John Jankovich, 2/4/03

Application and Review Checklist for (Acceptance, 1st, or 2nd) Review for SSD 00-000

SUMMARY DATA	
Name and Complete Mailing Address of the Applicant: Unverti Optical Co, Inc. 2900 S. Highland Dr., Bldg. 18c Las Vegas, NE 89109	Name, Title, and Telephone Number of the Individual to Be Contacted If Additional Information or Clarification Is Needed by the NRC: Rocky Green 702 369-4092
The Applicant is (check one): <input type="checkbox"/> Custom User <input type="checkbox"/> Manufacturer <input type="checkbox"/> Distributor <input checked="" type="checkbox"/> Manufacturer and Distributor	If the Applicant Is Not the Manufacturer, Provide the Name and Complete Mailing Address of the Manufacturer:
If the Applicant Is a Custom User, Provide the Name and Complete Mailing Address of the Distributor:	Provide the Name, Complete Mailing Address, and Function of Other Companies Involved: Lumitec South Africa not provided
Model Number:	Principal Use Code (see Appendix E):
Name Used by the Industry to Identify the Product (e.g., Radiography Exposure Device, Teletherapy Source, Calibration Source, etc.):	For Use by: <input type="checkbox"/> Specific Licensees Only <input type="checkbox"/> General Licensees Only <input type="checkbox"/> Both Specific and General Licensees <input checked="" type="checkbox"/> Persons Exempt from Licensing
Leak-Test Frequency: <input checked="" type="checkbox"/> Periodic Leak-Testing is Not Required <input type="checkbox"/> 6 Months <input type="checkbox"/> Attached is justification for a leak test frequency of greater than 6 months	Principal Section of the 10 CFR that Applies to the User (e.g., General Licensees under 10 CFR 31.5): Radionuclides and Maximum Activities (including loading tolerance): 30 mCi / source 180 mCi / device
CERTIFICATION: THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30 AND 32 AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF. WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.	
Certifying Officer — Typed Name and Title	
Signature:	Date:

CHECKLIST

Registration Certificate Holder:

Model:

DESCRIPTION	OK/DEF		COMMENTS
	1 st Reviewer	2 nd Reviewer	
DESCRIPTION/CONSTRUCTION			
If registration certificate holder is requesting to register more than one source/device on a certificate, are designs similar enough to do so?	def		Housing: steel/Al/plastic - specify Model designation is not clear need to specify materials clarify model designation (5-6 models) clarify drawing "Tritium configurations"
Device/source design with complete engineering drawings (dimensions, tolerances, list of materials)	OK		
Assembly methods (screw, welds, etc.); verify integrity	✓		
Source mounting (size and integrity) and security	✓		
Is source ANSI classification sufficient (from ANSI N43.6 and ISO 2919):	Def.		source wall thickness: 0.15mm Lumibc sources are not registered Need: • drawing/dimensions for each model • IAEA Report 324 inconsistency in source model: CL/15/487 A (in text) CL/15/485 (on drawing) • wall thickness is not 0.15mm on drawing • dimension units for draw "plastic tubes"
Radiography - Unprotected 43515			
Radiography - In Device 43313			
Medical - Radiography 32312			
Medical - γ Teletherapy 53524			
Medical - Brachytherapy 53211			
Medical - Source Applicators 43312			
γ Gauges - Unprotected 43333			
γ Gauges - In Device 43232			
β Gauges, Low Energy γ Gauges, or			
X-ray fluorescence 33222			
Oil Well Logging 56522			
Portable Moist/Density 43333			
Neutron Applications 43323			
Calibration source activity > 30 μ Ci (1 MBq) 22212			
γ Irradiators (I) 43323			
γ Irradiators (II, III) 43424			
γ Irradiators (II, III, IV) 53424			
Chromatography 32211			
Static Eliminators 22222			
Smoke Detectors 32222			
Definition of shutter operation (locked in Off position, not locked in On position), Fail safe, spacing and tolerances	NA		
On-Off indicators (description, qty., location)	NA		
Safety interlocks, guards, etc. to prevent access to beam or high radiation levels	NA		
Corrosion between unlike materials (e.g., aluminum & steel, depleted uranium & steel, etc.)	✓		
Shielding efficiency and integrity	✓		
For medical devices: Was a 510(k) provided? (provide written notification to FDA)	NA		
Well logging sources must be nondispersible and nonsoluble. (see Appendix B for a list of approved well logging sources as of November 1991)	NA		

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See "ANSI and Other Standards" list for references for particular source/device designs (e.g. radiography, Brachytherapy, etc.)			

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Model:

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LABELING			
Copy of label	} def		not specified we need drawings construction permanency
Materials, dimensions, colors (note on registration certificate if labeling is exempt from the color requirements of 10 CFR Part 20)			
Permanent attachment and location(s) - visible to users?			
Contents: Model#, Serial#, Isotope, Activity, Manufacturer, Date of Assay, Trefoil, "CAUTION - RADIOACTIVE MATERIAL" (Depleted Uranium information must be included)			
CONDITIONS OF USE			
Expected working life of the source/device (years, operations)	def		not specified
Actions to be taken when product reaches end of its working life.	✓		
Maximum allowable temperature, vibration, shock, corrosion, etc. (during use, handling, storage, and transport)	✓		
How the device will be used	def		gun models/energy of firing not specified
Meets dose limits of Part 32 for distribution general licensees or persons exempt from licensing	✓		
PROTOTYPE TESTING/HISTORICAL USE			
Tests methods and conditions (for source and device)	} def		was testing per App. D, Vol. 8, NUREG-1556 • material of prototypes? • duration of tests • same units in sequence? need more specifics ? results are not attached • verify that all models were tested + fired
Tests results			
Years of use (incidents, failures, etc.)			
Similarities to other sources/devices if they are used as basis.			
RADIATION PROFILES			
Survey instrument used (type, window thickness, sensitivity, etc.)	} ✓		
Conditions: including environments, scatter (product in beam), and use of guards and shields			
Distance from source/surface (per ANSI 538-1979)			
Shutter Open and Closed/Source Shielded			
Verify radiation surveys for γ radiation meet inv^2 law.			
Verify radiation surveys for non- γ radiation have not been calculated using inv^2 law.	NA		

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QUALITY ASSURANCE			<i>need to specify who, where fabricates the housing</i>	
Materials, subassemblies, services	}			
Assembly methods (screws, welding, etc.)				
Dimensions and tolerances				
Activity, radiation levels, leak tests				
QA Manual and comparison of manual to Regulatory Guide 6.9				
INSTALLATION				
Fixed, portable, movable, fixed installation but portable source housing	}			
Inherent shielding, inaccessibility				
Beam access: size of air gap/opening to beam and use of interlocks, locks, additional shielding or barriers		<i>NA</i>		
Mounting integrity				
SAFETY INSTRUCTIONS				
Operation, maintenance, calibration, damage/failure, specific warnings, leak test, and radiation surveys	<i>def</i>		<i>needs operating manual +</i>	
ACCOMPANYING DOCUMENTATION				
Leak tests results and radiation surveys				
Transportation documents				
Operation, maintenance, calibration, damage/failure, specific warnings, leak test, and radiation survey instructions if applicable	<i>def</i>			
For Distribution to General Licensees: Verify NRC Regions and Agreement State listing is up-to-date and copies of all pertinent regulations				

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Model:

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				1 st Reviewer	2 nd Reviewer	
SERVICING						
The following activities may be performed by the persons indicated:				NA		
Activity	by a General Licensee	Only by a Specific Licensee	Will be Offered by the Applicant			
Installation						
Relocation						
Maintenance						
Repair						
Source Exchange						
Calibration						
Leak Testing						
Radiation Survey						
Training						
FOREIGN VENDORS						
Drop ship				NA		
Who and where is source installed				✓		
Leak test and radiation surveys				✓		
QA in the U.S.				✓		

1st Reviewer Signature:

John P. [Signature]

Date:

2/4/03

2nd Reviewer Signature:

Date: