

## DATA SHEET

Attached N/A

Appendix A ☐ ☐  
 Appendix B ☐ ☐  
 Appendix C ☐ ☐

DOCKET NO. \_\_\_\_\_

FACILITY Ellucian, IncINSPECTION NO. 7601CITY, STATE Somerville, N.J.DATE/S 1/22/76

SUBJECT - RADIATION SAFETY

LICENSE NO/S. 20-02746-03\*\*

PHONE # FTS \_\_\_\_\_

LOCAL 201-529-6400EXT 3536  
(RSC)INSPECTOR C. J. Sturmer

REVIEWER \_\_\_\_\_

TYPE OF INSPECTION: ☐ INITIAL ☒ SPECIAL ☐ ANNOUNCED  
☒ REINSPECTION ☐ ROUTINE ☒ UNANNOUNCED

DATE OF LAST INSPECTION: 7/27 & 25/74RECOMMENDED DATE, NEXT INSPECTION: 1/77

☐ SPECIAL  
☐ ROUTINE

TYPE OPERATION: Indicator

SCOPE OF OPERATION

☐ SMALL  
☐ MEDIUM

☒ LARGE → A large indicator containing more than 1 1/2 million curies

PRESENTLY CLASSIFIED CAT/PRI E II; AS OF AMENDMENT NO. \_\_\_\_\_☒ NO CHANGE REQUIRED☐ CHANGES TO CAT/PRI \_\_\_\_\_☐ PER ATTACHED MEMO DATED \_\_\_\_\_SUMMARY OF FINDINGS

☒ NO NONCOMPLIANCE NOTED  
☐ 591 ☒ ROL ☐ OTHER  
☐ NO SPECIAL PROBLEMS

☐ SEE APPENDIX A FOR NONCOMPLIANCE ITEMS  
☐ SEE APPENDIX B FOR PROBLEM AREAS  
 RELATIVE TO \_\_\_\_\_

PERSONS CONTACTED\*

NAME	TITLE	ORG	NAME	TITLE	ORG
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*1. Edward J. Kendra	R.S.O. and Reg	Technical Services			
2. Fred Thompson, Sr	Technician (Indicator)		* Dr. Charles Arlenti	V.P. for Research	
3. Dr. R. J. Fickel	Director of Research				
4. Matthew H. W. Kelly	DVM	War 20-0610.			
5. Mayorie McFarhan	user	War 20-06 (by "internal" phone from Kendra's office)			

\* MANAGEMENT MEETING ATTENDEES

\*\* (See also DETAILS for licenses -09, -05, and -06, inspected on same date.)

	INSPECTION ITEM	SOURCE OF INFORMATION	ACCEPTANCE CRITERIA	FINDINGS
P/I 7410	Management Controls			
.01 .06	Responsibilities; Qualifications Users---RSO---Management		L/C _____ which references document dated _____	RSO checks that procedures are followed, and that commitment to make various checks purveys are adhered to (the supervisor is in his possession) etc.
.02	Internal Audits		L/C as above; 10 CFR 19, 20, 31, 35	
.04	Inventory Controls; Related Records		L/C 6, 7, 8; 30.41, 30.53	
	Training			
.07	Qualification, Competence of Instructors  Technican Instruction/Training  Posting of Notices, Lic., AEC-3, etc.  Special Work Permits  Cleaning & Bldg. Maint. Pers.	Employee Interviews	Inspector Judgement  Document dated _____, L/C _____, 19.12  19.11  19.12  19.12	None of technicians are want employees This qualification were reviewed in previous inspection Thompson demonstrated to this inspector that he was intimately familiar with all aspect of the regulatory and the provisions commitment on of RSO, 87274 have been carried out. Approved maps Licensee Letter dated _____ has been submitted and water analyses includes check of water treatment system, and filter, as well as sampling each from pool itself. Inspector discussed with RSO as well as some records books.
7415	Inspection History			
.01	Corrective action; Previously noted noncompliance		Pertinent regulations Licensee Letter dated _____	

	INSPECTION ITEM	SOURCE OF INFORMATION	ACCEPTANCE CRITERIA	FINDINGS
.02	Incidents, accidents, unusual occurrences since last inspection including equipment malfunctions		20.402; 20.403; 20.405 Inspector Judgement	<i>none</i>
.02	Unresolved Items, per list, Problem areas, per previous inspection, evaluation memo.		Pertinent regulations Inspector Judgement	<i>Inspector confirmed that Manual is being followed.</i>
F/I 7420	<u>Uses of Material</u>			
.01	License limitations, re: purpose, personnel, location, etc.		L/C 9, 10 et. seq.	<i>OK</i>
.01	Scope of program		Not applicable	<i>Insulate Ethylene products, with automatically feed mechanism containing 7 1/2 man-hours.</i>
7430	<u>Surveys</u>			<i>Annual surveys performed monthly, all levels outside the insulator are far below limit of instability and except for the roof which is not restricted.</i>
.01	Restricted Areas Unrestricted Areas Extremities Airborne Activity, Contamination Trash, Wastes, Burials Liquid and Gaseous Effluents Leak Tests Incoming Packages		20.101 20.105  20.103 20.301; 20.304 20.106; 20.303 L/C 20.205	
.02	Personnel Monitoring Equip. Records Personnel Exposures - ALAP Bioassay Results		20.202 20.401(a); 20.401(b) 20.1 20.103-40 MPC HRS/WEEK	<i>Film badge exposure minimal. Also use "chipfox" is carried into insulator when work is to enter.</i>

INSPECTION ITEM	SOURCE OF INFORMATION	ACCEPTANCE CRITERIA	FINDINGS
7420 Equipment			
.03 Adequacy of instrumentation; fixed & portable meters and systems alarms; warning devices, Calibrations of Instruments		Inspector Judgement 20.203 Qtrly; Inspector Judgement	Not possible to enter, without carrying some meter - (Chainette King) Elaborate (and sufficient) system of alarms and automatic checks and calibrations. All were functioning. * ↑
Observations/Measurements			
.01 Posting of notices; warning signs, alarms, warning devices		19.11(b), (c), (d); 20.203	Instructions posted. Re alarms, etc, v.o.
Physical security; housekeeping		20.207; Insp. Judgement	good Tight control including lock down over access to the outside (console) area far below limits
Radiation levels		20.105	OK
Wearing of required P.M. devices		20.202	OK
Breathing Zone Air sampling sys.		20.201(b)	An samplers not BZ
Isokinetics, Effluent sampling systems		20.106, 20.301, 20.303	n/a
AP; Contamination controls via ventilation, Hood face velocities, gloveboxes		20.103; 20.106	n/a
Protective clothing; disposable equipment		20.103	n/a

\* Discussed proposed changes in Part 20 with Kendra and Thompson, and left copy of their proposed changes. It was their opinion that all of the proposed regulations are already or currently being complied with except that a complete check of exit control devices is done monthly, rather than daily.

APPENDIX A

PAGE - OF -

NONCOMPLIANCE BACKUP

Facility \_\_\_\_\_ Insp. No. \_\_\_\_\_

License No. \_\_\_\_\_

BASIS FOR CITATION

Item # \_\_\_\_\_  
10 CFR \_\_\_\_\_  
L/C \_\_\_\_\_  
\*Class \_\_\_\_\_

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Item # \_\_\_\_\_  
10 CFR \_\_\_\_\_  
L/C \_\_\_\_\_  
\*Class \_\_\_\_\_

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Item # \_\_\_\_\_  
10 CFR \_\_\_\_\_  
L/C \_\_\_\_\_  
\*Class \_\_\_\_\_

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10 CFR \_\_\_\_\_  
L/C \_\_\_\_\_  
\*Class \_\_\_\_\_

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Item # \_\_\_\_\_  
10 CFR \_\_\_\_\_  
L/C \_\_\_\_\_  
\*Class \_\_\_\_\_

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Item # \_\_\_\_\_  
10 CFR \_\_\_\_\_  
L/C \_\_\_\_\_  
\*Class \_\_\_\_\_

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\*(V) Violations; (In) Infraction; (Def) Deficiency; (C) Commitment;  
(Dev) Deviation

APPENDIX B

- ☐ Inspector Comments
- ☐ Unresolved Items
- ☐ Uncorrected or Repeated n/c
- ☐ Unusual Occurrences, Etc.

Facility \_\_\_\_\_ Inspection No. \_\_\_\_\_

License No. \_\_\_\_\_

The next inspector should be aware of the following:



APPENDIX C - SPECIAL CONSIDERATIONS

Licensee \_\_\_\_\_ Lic. No. \_\_\_\_\_ Insp. No. \_\_\_\_\_

<u>Inspection Item</u>	<u>Source of Information</u>	<u>Acceptance Criteria</u>	<u>Findings</u>
<b>A) Dose Considerations:</b> (1) Lenses of Eyes (2) Extremity Doses - (Rings) (3) Ancillary personnel (Nurses)		Inspector judgment 20.201(b) ref. 20.101	
<b>B) Teletherapy</b> (1) Posting (2) Interlocks (3) 5 year maintenance (4) Malfunctions		Inspector judgment 20.101; 20.105	
<b>C) Medical</b> (1) Authorized Procedures Authorized Materials Authorized Users Authorized Instruments (a) Mo <sup>99</sup> breakthru (b) Calibrated as per L/C _____ (2) Leak Tests (3) Sealed Source Inventory (4) Xe133 & others auth. by L/C _____		35.14, 35.100  L/C  35.14(b)(5)(1) 35.14(e)(1)(1) 35.14(b)(5)(v) 35.14(f)(2)  L/C	

DETAILS

04  
29-0286--05  
-06

inc -06 is for tracer studies and could include tests on animals. However, according to McTernan, there has been practically no use since June 1975, and in the year\* prior to that use, was confined entirely to the testing of the effectiveness of the packaging of sutures — i.e. how moisture-proof they are. (No animal work has been done).

Only H-3 has been used. Treated water in quantities as high as 500  $\mu$ l were injected into the individual sealed packets to be tested. Then the packets were soaked in glycerine, and the glycerine was counted for presence of H-3 — (i.e. H<sub>2</sub>O). Work performed in hood on absorbent matting.

Surveys daily. Unwatches before and after. Results negligible. Also periodic surveys by T. eddyne.

\* (Previous inspection was July, 1974.)



Inspector reviewed records, <sup>of result</sup> of surveys by  
Telidyne, since these records were held  
by Kendra. However when inspector examined  
facilities used by McTernan for experiment  
described above, she was not present, and  
U'ghoff did not know where records were  
filed. In discussion <sup>later</sup> by internal phone with  
McTernan, from another part of Elnucon facility,  
she promised to mail samples of survey and  
borehole records to I:E:I office.

all waste is transferred to commercial disposal service (Telidyne),  
and waste drums have been surveyed for contamination since  
previous inspection (N/C) and records maintained.)  
Lii - 05

Gas chromatographs ~~is~~ containing Ni-63,  
Kendra was not aware of any use of this  
instrument in recent years. However, it is in  
the process of being moved to a new facility  
in a new building at Elnucon, and French  
stated that it will probably have some use,  
although infrequent. The inspector  
examined the ducts being installed in the  
new facility to ~~provide~~ connect the gas  
chromatographs to the exhaust system & the

Kendra stated a leak test will be performed

when the unit has been installed at the new facility,  
and they will be performed henceforth at  
six-month intervals.

See-09

The only material possessed under this  
license is Si-90 ~~is~~ calibration sources  
for Jordan Electronics survey instruments.  
These have been in storage only for  
many years, according to Kendra,  
and he will probably dispose of them  
in the near future, and allow the  
license to expire.