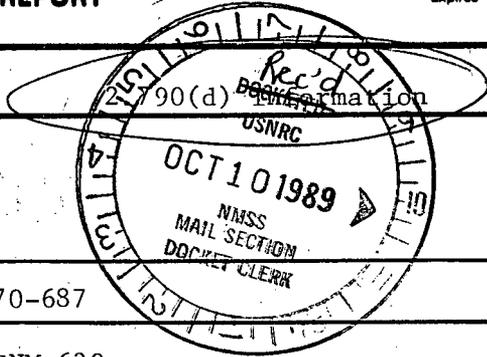
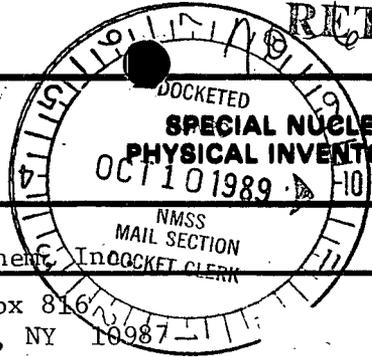


RETURN TO PI-137 305-SS PDR: No

NRC FORM 327 (10-88)
10 CFR § 70.81(e)(5) and 74.31(c)(4)

SPECIAL NUCLEAR MATERIAL (SNM) PHYSICAL INVENTORY SUMMARY REPORT

U.S. NUCLEAR REGULATORY COMMISSION
Approved by OMB 3180-0130 Expires 11-30-89



LICENSEE NAME: Cintichem, Inc.

FACILITY LOCATION: P.O. Box 816 Tuxedo, NY 10987

DESCRIPTION	GRAMS ELEMENT (U or Pu)	GRAMS ISOTOPE (U-233, U-235, or Pu-239 + Pu-241)	DOCKET NUMBER												
BEGINNING INVENTORY	26,485	21,902	70-687												
RECEIPTS	3,459	3,223	LICENSE NUMBER: SNM-639												
SHIPMENTS	-	-	REPORTING PERIOD: FROM 06/29/89 TO 8/30/89												
MEASURED DISCARDS	379	352	SPECIAL NUCLEAR MATERIAL CATEGORY: <input checked="" type="checkbox"/> HEU <input type="checkbox"/> Pu <input type="checkbox"/> U-233 <input type="checkbox"/> LEU												
ENDING INVENTORY	26,691	24,897	LICENSEE'S CERTIFYING OFFICIAL: Lowell C. Thelin DATE: 9-28-89												
NET SUM OF BIASES pertaining to but not included in the above quantities*	±	±	<table border="1"> <tr> <th>DESCRIPTION</th> <th>GRAMS ELEMENT</th> <th>GRAMS ISOTOPE</th> </tr> <tr> <td>STANDARD ERROR OF THE ID (SEID)</td> <td></td> <td></td> </tr> <tr> <td>SEID LIMIT</td> <td></td> <td><300</td> </tr> <tr> <td>ID LIMIT</td> <td></td> <td></td> </tr> </table>	DESCRIPTION	GRAMS ELEMENT	GRAMS ISOTOPE	STANDARD ERROR OF THE ID (SEID)			SEID LIMIT		<300	ID LIMIT		
DESCRIPTION	GRAMS ELEMENT	GRAMS ISOTOPE													
STANDARD ERROR OF THE ID (SEID)															
SEID LIMIT		<300													
ID LIMIT															
PRIOR PERIOD ADJUSTMENTS**	±	±													
INVENTORY DIFFERENCE (ID) (The algebraic sum of the above values.)	± (-) 126	± (-) 124													

*If the net sum of all biases is positive, circle the "-" sign; if the net sum of all biases is negative, circle the "+" sign.
**If the sum of prior period adjustments increases the ID, circle the "-" sign, if the sum of prior period adjustments decreases the ID, circle the "+" sign.

ATTACH EXPLANATIONS OR COMMENTS TO THIS FORM ON CORPORATE LETTERHEAD

DEFINITIONS OF QUANTITIES REPORTED

- BEGINNING INVENTORY:** The quantity of SNM present at the facility as of the beginning of business on the first day of the period covered by the report. This quantity must agree with the ending inventory value (element and isotope) on the last report submitted.
- RECEIPTS:** The quantity of SNM received at the facility and other increases resulting from the introduction of additional SNM into the inventory during the reporting period.
- SHIPMENTS:** The quantity of SNM that was shipped from the facility during the reporting period. This includes any samples shipped for off-site analysis and parts of SNM receipts that were returned to the shipper. Measured discards are not to be included, even if shipped during the reporting period for disposal.
- MEASURED DISCARDS:** The quantity of SNM in the forms of gaseous, liquid and solid waste that has been discarded from the plant during the reporting period. This quantity includes the amounts of discarded SNM that have been transferred to an official holding account, released to the environment under license conditions or methods approved pursuant to 10 CFR 20, or shipped to an authorized recipient for disposal.
- ENDING INVENTORY:** The quantity of SNM that is indicated to be present at the facility as the result of the physical inventory.
- BIAS:** A fixed error which remains constant over replicated measurements. (Refer to the license conditions for specific operational procedures for calculating bias.)
- PRIOR PERIOD ADJUSTMENTS:** The quantity of SNM, increment or decrement, by which the centralized record system was adjusted during the current reporting period for verifiable corrections that were applicable to prior reporting periods. Typically, this quantity will involve corrections of shipments and receipts to reconcile shipper-receiver differences, or corrections of errors associated with the beginning inventory that were detected after the previous report was submitted. Any bias adjustments associated with these corrections should be included.
- STANDARD ERROR OF THE INVENTORY DIFFERENCE (SEID):** The standard deviation of an inventory difference that takes into account measurement error contributions to the components of the ID.
- SEID LIMIT:** The applicable quantity in 10 CFR 70.51(e)(5), 10 CFR 74.31(c)(4), 10 CFR 74.59(e)(5) or another quantity assigned to the licensee by the NRC.
- ID LIMIT:** The applicable quantity in 10 CFR 74.13(b)(1), 10 CFR 74.31(c)(5), 10 CFR 74.59(f)(1)(i) or another quantity assigned to the licensee by the NRC. If exceeded, this quantity of material would prompt an investigation and possibly the submittal of a subsequent special report to the NRC.

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SNM INVENTORY REPORTLicensee: Cintichem, Inc.License No. SNM-639Plant: Sterling ForestLocation: Tuxedo, NYMaterial Balance Period: 06/28/89To: 08/30/89Physical Inventory START DATE: 08/30/89Material Type (1): U²³⁵-720

		ELEMENT	ISOTOPE (2)
1.	Beginning Inventory	23,485	21,902
2.	Receipts	3,459	3,223
3.	Shipments	-	-
4.	Measured Discards	-	-
5.	Decay	-	-
6.	Ending Inventory	26,691	24,897
7.	MUF	(-) 126	(-) 124
8.	Calculated	-	-
9.	Shipments to Burial	379	352
10.	Accidental Loss		
11.	Cumulative MUF (Since 5/10/74)	(-) 1,428	(-) 891
12.	Additions to Process	3,459	3,223
13.	Removals From Process	379	352
14.	MUF as % of #12 or #13	33.24	35.23
15.	LEMUF as % of #12 or #13		
16.	LEMUF Specification (10 CFR 70/License Condition)		< 300

NOTES: (1) Pu, U-235 (> 20%), U-235 (< 20%), U-233
 (2) Not Applicable for Pu

Lowell C. Thelin 9-28-89

REMARKS:

FROM 00/29/89 THRU 08/30/89

(ZWN-VAQ) Waste Shipment

(FORM 741)

<u>#</u>	<u>DATE</u>	<u>(E)</u>	<u>(I)</u>	<u>(E)</u>	<u>(I)</u>
645	06/29/89	123.39	114.76	123	115
646	07/18/89	109.97	101.36	110	101
647	08/15/89	146.32	136.24	146	136
	TOTAL	379.68	352.36	379	352

(FZF-ZWN) Results U²³⁵ (Feeds)

209	06/29/89	687.40	640.53	687	641
210	07/12/89	692.90	645.15	693	645
211	07/27/89	691.20	643.96	691	644
212	08/09/89	693.55	646.48	694	646
213	08/16/89	694.30	347.44	694	647
	TOTAL	3459.35	3222.56	3459	3223

DOCKET NO. 70-687

CONTROL NO. 25986

DATE OF DOC. Sept. 28, 1989

DATE RCVD. October 10, 1989

FCUF _____ PDR _____

FCAF _____ LPDR _____

I & E REF _____

SAFEGUARDS

FCTC _____ OTHER _____

DATE 10/10/89 INITIAL SAC