RETURN TO 396-SS

70-371

UNC Naval Products

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In Reply Please Refer To:
NIS-89-12-12

December 20, 1989

Mr. Leland C. Rouse
Fuel Cycle Safety Branch
Mail Stop WF1 6H3
Division of Fuel Cycle & Medical, & Commercial Use Safety
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Ref.
1) Letter, R.J.Gregg to L.C.Rouse, Oct. 14, 1988
2) Amendment No. 8 Letter W.T.Crow to W.F.Kirk dated Sept. 27, 1986
3) Letter, W.F.Kirk to W.T.Crow, Aug. 26,1986
4) Letter M.L.Horn to R.Gregg, Dec. 26, 1988
5) NUREG-1112 Environmental Assessment For Renewal of SNM License No. 368, Jan. 1985
6) Letter W.F.Kirk to M.J.Rhodes (NRC) on Environmental Information dated Aug. 19, 1983
7) Letter, W.F.Kirk to W.T.Crow, Jan. 26, 1983
8) Letter, W.F.Kirk to W.T.Crow, Jan. 16, 1989
9) Letter, R.J.Gregg to L.C.Rouse, Dec. 15, 1989

Subject: Docket 70-371, SNM License #368 Amendment Request

Dear Sir,

In support of our request submitted with Ref. 9, UNC encloses updated pages of the environmental evaluation which was submitted with Ref. 8.

Very Truly Yours

R. J. Gregg
Director,Technical Services

RJG/jmp

Attachments:
As stated

DF03

add'l info 26206

Environmental Questions

UNC, Inc.

Docket 70-371

1. What are the expected chemical and radiological emissions (gaseous and liquid)?

Wash/shower water, and Chem lab liquids consistent with current lab operations go to the existing radwaste system in the B-South basement for treatment and disposal. Additional chemical liquids generated are identified as:

- X-ray film fixer and developer solutions - these solutions are not radiometrically contaminated and are collected, processed for silver recovery, and disposed of on a batch basis by a licensed hazardous waste hauler. Similar processing and disposal is underway from our currently licensed facilities and this represents an addition to current established procedures and practice.

- X-ray film rinse water - this effluent is not radiometrically contaminated and will be discharged as process water to the sanitary sewage system under appropriate State Permit. This represents an addition to current established procedures and practice.

- Detergent Wash - This solution is not radiometrically contaminated and is generated from the washing of non-fuel metal components. The detergent is batch collected and disposed of as hazardous waste via a licensed hauler. This represents an addition to current established procedures and practice.

- Detergent Rinse Water - This effluent is generated from rinsing non-fuel components previously washed and will be discharged as process water to the sanitary sewage system under appropriate State Permit. This represents an addition to current established procedures and practice.

- Used hydraulic and vacuum pump oils to approved off site disposal.

The gaseous emissions are air or argon from any of the stacks listed in Table 1, with occasional residual amounts of organic vapors and radioactive materials which have not been removed by the HEPA filters or scrubbers. The chemical solvents methylene chloride and octane are used in the production process. Extensive engineered controls and monitored solvent recovery units have been established to create a closed loop solvent recycling system. These will ensure that only minimal quantities are released, and that they are well within requirements of the Ct. Department of Environmental Protection. Additional trace quantities of isopropyl alcohol resulting from cleaning/wiping of work surfaces and parts will be intermittently exhausted.

Chemistry lab analytical operations, necessary to confirm product quality, can also result in the occasional release of small amounts of acidic fumes. These stacks are HEPA filtered or scrubbed prior to discharge.

2. Provide an evaluation of the potential environmental impacts due to the emissions.

As stated in Ref. 1, the new stacks are associated with similar operations to those of B-South, and the B-South operations have decreased substantially over the last several years. Therefore there is no change in the environmental impacts from Ref. (5).

3. Provide a description of the release points for gaseous emissions (i.e., stack dimensions, vents) and describe the protective measures used to prevent releases to the environment (i.e., use of filters, scrubbers).

Table 1 and Figure 4.4.2.2 provide a description of the release points for gaseous emissions from L-Building. All exhausts will be HEPA filtered or scrubbed as described in Section 4.4.2.3, Part I of the current license.

4. Describe the monitoring provided on the effluent streams.

As stated in Ref. 8, the monitoring provided on the effluent streams is per Ref. (6) Table II, a portion of which is given below.

TABLE II EFFLUENT AND ENVIRONMENTAL MONITORING PROGRAM

	SAMPLE MEDIUM	# OF SAMPLING POINTS/STATIONS	COLLECTION FREQUENCY	ANALYSIS FREQUENCY	ANALYSIS PARAMETERS	DETECTION LIMIT	ACTION LEVELS (IF ANY)
1. Release Surveillance							
A. Air Effluents							
1. Stacks	Air particulates	15	Continuous	Varies from 1-4 days	Gross alpha	2.2×10^{-14} μCi/cc	25 and 50% 10CFR Part 20 limits
B. Liquid Effluents							
1. Rad Waste	Water	1	Continuous per batch release	Daily and monthly/composite	Gross alpha + List A	1×10^{-12} μCi/cc	10CFR Part 20 limits

5. Discuss any potential accident scenarios that would be different from those for existing operations.

As stated in Ref. 8, the potential accidents are the same or less than those previously noted in Ref. (5) and Ref. (7) because less hazardous octane has replaced hexane in all applications.

6. Describe any processing of the liquid waste stream.

As stated in Ref. 8, the processing of the liquid waste stream is as described in the present license, Section 4.4.3, Part I and as evaluated in Ref.(5).

7. Provide an unclassified site plan showing building locations.

Figure E 740913-150 submitted with Ref. 8 applies.

TABLE I

DISCHARGE	LOCATION	SIZE	V/H (Vertical or Horizontal)	HT (Above Roof)	CFM	FUNCTION
L-1	H.P. Room	22"Dia.	V	4'	3600	Hood In H.P. Room
L-2	Vault Glove Boxes	4" Dia.	V	6'	600	Glove Boxes In Vault
L-3	Tensioning Rm.	22" Dia.	V	4'	3000	Water Wash Tank
L-4	Space Exhaust	48"X18"	V	4'	0-2000	Trims Bldg. Pressure
L-5	Space Exhaust	48"X18"	V	4'	0-2000	Trims Bldg. Pressure
L-6	Space Exhaust	48"X18"	V	4'	0-2000	Trims Bldg. Pressure
L-7	Space Exhaust	48"X18"	V	4'	0-2000	Trims Bldg. Pressure
L-8	Space Exhaust	48"X18"	V	4'	0-2000	Trims Bldg. Pressure
L-9	Component Wash	30"Dia.	V	3'	6000	Exhaust for Component Wash
L-10	Hydraulic Pit	32"Dia.	V	4'	9000	Exhaust For Hydraulic Pit
L-11	Hydraulic Pit	34"Dia.	V	4'	8800	Exhaust For Hydraulic Pit
L-12	Vault Space	12"X12"	V	3'	400	Space Exhaust
L-13	Lavatories	12"Dia.	V	4'	300	Mens/Ladies Room Exhaust
L-14	Die Clean Rm.	24"Dia.	V	4'	5000	Die Cleaning
L-15	Chem. Lab.	12"Dia.	V	4'	1000	Solvent Hood
L-16	Chem. Lab.	16"Dia.	V	4'	3000	Acid Hood
L-17	NE Corner "L"	4"Dia.	V	4'	1000	A-2 Glove Box
L-18	Mech.Mezz "L"	4"Dia.	V	4'	1000	Vacuum Pumps

TABLE I

DISCHARGE	LOCATION	SIZE	(Vertical or Horizontal) V/H	(Above Roof) HT	CFM	FUNCTION
L-19	DeSac	10"Dia.	V	4'	2000	DeSac Box
L-20	Air Side AMF	12"Dia.	V	4'	4000 Intermittent	Air Enclosure
L-21	Argon Side AMF	12"Dia.	V	4'	4000 Intermittent	Argon Enclosure

DOCKET NO. 70-371

CONTROL NO. 26206

DATE OF DOC. Dec 20, 1989

DATE RCVD. Dec 27, 1989

FCUF ✓ PDR ✓

FCAF _____ LPDR _____

I&E REF. ✓

SAFEGUARDS ✓

FCTC _____ OTHER _____

DATE 12/27/89 INIT'L SLF