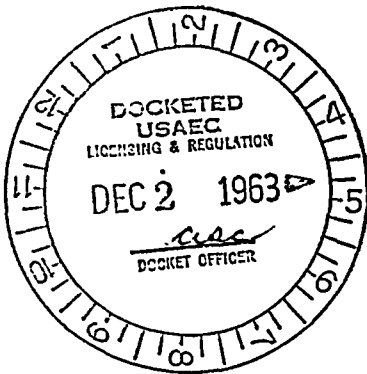


UNITED NUCLEAR
CORPORATION
CHEMICALS DIVISION

L&R File Copy

NOVEMBER 27, 1963

ROUTE 21-A
HEMATITE, MISSOURI

MR. E. R. PRICE
ASSISTANT DIRECTOR
DIVISION OF LICENSING AND REGULATIONS
U. S. ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

SUBJECT: APPLICATION FOR SOURCE AND SPECIAL NUCLEAR MATERIAL LICENSES
FOR UNITED NUCLEAR CORPORATION'S SCRAP PLANT FACILITIES AT
WOOD RIVER JUNCTION, RHODE ISLAND

DEAR MR. PRICE:

WE ARE HEREBY REQUESTING THE ISSUANCE OF SOURCE AND SPECIAL NUCLEAR MATERIAL LICENSES WHICH WILL PERMIT UNC TO ENGAGE IN ACTIVITIES PLANNED FOR ITS NEW SCRAP PLANT FACILITIES CURRENTLY BEING CONSTRUCTED ON UNITED NUCLEAR PROPERTY LOCATED JUST SOUTH AND EAST OF WOOD RIVER JUNCTION, RHODE ISLAND. AS REQUIRED, WE ARE SUBMITTING HERewith SIX COPIES OF GENERAL INFORMATION, PROCEDURES AND CALCULATIONS DESCRIBING THESE FACILITIES.

WE REQUEST THESE LICENSES BE GRANTED FOR AN INDEFINITE PERIOD OF TIME.

WE HAVE ENDEAVORED TO COMPLY WITH THE REQUIREMENT FOR SPECIFIC INFORMATION INsofar AS POSSIBLE. AS WE HAVE INDICATED IN THE PAST, WE ARE IN AGREEMENT AS TO THE NEED OF A RIGOROUS REVIEW AND EVALUATION PROGRAM AND THE ASSURANCE THAT CONTROLS ARE ADEQUATE. WE CONSIDER OUR APPROACH AND METHODS OF CONTROL TO MEET THE INTENT OF THE CRITERIA SPECIFIED. WE DO DIFFER, TO SOME EXTENT, IN METHODS OF CONTROL TO ASSURE AN ADEQUATE DEGREE OF SAFETY AND, YET, PERMIT COMMERCIAL OPERATION.

THERE ARE CERTAIN POINTS INCLUDED IN THE PROPOSED REVISION TO 10 CFR 70 WHICH HAVE NOT BEEN OBSERVED. THESE ARE:

1. THE SOLID ANGLE METHOD FOR DETERMINING INTERACTION WITHIN ARRAYS HAS BEEN APPLIED TO UNITS CONTAINING MORE THAN TWO KILOGRAMS OF METAL IN ALLOY FORM.

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ACKNOWLEDGED

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*b-133**See Reports file for Enclosures*

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2. THE MULTIPLICATION FACTOR ON WHICH THE SAFE SOLID ANGLE HAS BEEN ESTABLISHED DOES NOT INCLUDE THE EFFECTS OF REFLECTION BY THE CONTAINER WALLS OR OTHER NEARBY OBJECTS.
3. AN EVALUATION HAS NOT BEEN MADE OF THE ABILITY OF IN-PLANT STORAGE CONTAINERS TO SUSTAIN A FALL FROM THE MAXIMUM STORAGE HEIGHT WITHOUT SPILLING THEIR CONTENTS.

BASED ON OUR EXPERIENCE TO DATE IN THE PROCESSING AND SHIPPING OF SEVERAL HUNDRED THOUSAND POUNDS OF SPECIAL NUCLEAR MATERIAL, WE BELIEVE WE HAVE PROVIDED THE CONTROLS AND FURNISHED INFORMATION COMPARABLE IN SCOPE TO THAT REQUESTED AND YET APPROPRIATE FOR THE SPECIFIC PROBLEMS OF OUR NEW SCRAP PLANT.

AS YOU MAY KNOW, WE ARE PROCEEDING WITH CONSTRUCTION OF THE FACILITIES AT RHODE ISLAND, WHICH HAVE BEEN DESIGNED ON THE BASIS OF EXPERIENCE IN OPERATING NUCLEAR FACILITIES. WE ARE MAKING EVERY EFFORT TO MEET OUR STARTUP DATE OF FEBRUARY 1, 1964, AND SHALL BE PLEASED TO DISCUSS ANY ASPECT OF OUR LICENSE APPLICATION AT YOUR CONVENIENCE.

YOURS TRULY,



C. W. KUHLMAN
MANAGER, CHEMICAL OPERATIONS

CWK:JRT