

PRINCIPAL STAFF			
2A		INF	
DE		SCS	
AD		PAO	
2B		CLO	
2C		CS	
2D			
DE			
ML			
OL		FILE	2

October 3, 1983
DAEC-83-789

Subject: Duane Arnold Energy Center
Docket No. 50-331
Op. Lic. # DPR-49
Radiological Analysis Confirmatory
Measurements Program - Strontium

As requested by Mr. Steve Rozak during NRC Inspection 83-13 the most recent results of our contractor's (NUS) analysis of DAEC strontium samples are as follows:

Analytics:	Sr-89 = 1.54 E-4 $\mu\text{Ci/ml}$	Sr-90 = 2.46 E-6 $\mu\text{Ci/ml}$
NUS:	Sr-89 = 1.50 E-4 $\mu\text{Ci/ml}$	Sr-90 = 1.60 E-6 $\mu\text{Ci/ml}$

Analytics: Sr-89 = 1.97 E-4 $\mu\text{Ci/ml}$ Sr-90 = 2.58 E-6 $\mu\text{Ci/ml}$
NUS: Sr-89 = 2.50 E-4 $\mu\text{Ci/ml}$ Sr-90 = 4.00 E-6 $\mu\text{Ci/ml}$

Analytics: Sr-89 = 2.0 E-4 $\mu\text{Ci/ml}$ Sr-90 = 2.3 E-4 $\mu\text{Ci/ml}$
NUS: Sr-89 = 9.2 E-5 $\mu\text{Ci/ml}$ Sr-90 = 8.2 E-7 $\mu\text{Ci/ml}$

Initial Results

Reactor Bldg.:	Sr-89 = 6.10 E-8 μ Ci/ml	Sr-90 = 3.00 E-9 μ Ci/ml
Offgas Stack:	Sr-89 = 5.30 E-8 μ Ci/ml	Sr-90 = 2.20 E-8 μ Ci/ml
Turbine Bldg.:	Sr-89 = 5.50 E-9 μ Ci/ml	Sr-90 = 1.30 E-8 μ Ci/ml

Re-analysis Results

Reactor Bldg.:	Sr-89 = 6.80 E-8 $\mu\text{Ci/ml}$	Sr-90 = 3.40 E-9 $\mu\text{Ci/ml}$
Offgas Stack:	Sr-89 = 5.70 E-8 $\mu\text{Ci/ml}$	Sr-90 = 2.50 E-8 $\mu\text{Ci/ml}$
Turbine Bldg.:	Sr-89 = 8.10 E-10 $\mu\text{Ci/ml}$	Sr-90 = 1.40 E-8 $\mu\text{Ci/ml}$

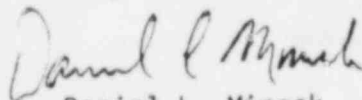
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Re-analysis of the semi-annual results for air filters are all within 15% of the initial analysis, with the exception of Turbine Building strontium-89, which is lower. Even when the most conservative values for all these samples are utilized, the calculated releases are well below DAEC Technical Specification limits.

The above results confirm information which has been provided verbally to Mr. Rozak by my staff. If you have any questions, please contact Mr. Bob Dye, at 319/851-7293.

Very truly yours,



Daniel L. Mineck
Plant Superintendent - Nuclear

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File A-102, A-117