

# REGULATORY DOCKET FILE COPY



**INDIANA & MICHIGAN POWER COMPANY**

DONALD C. COOK NUCLEAR PLANT  
P.O. Box 458, Bridgman, Michigan 49106  
(616) 465-5901

November 29, 1978

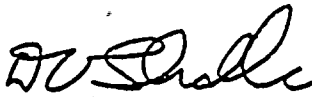
Ms. R. J. Greer  
Office of Inspection and Enforcement  
United States Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Dear Ms. Greer:

Attached please find the results of the split samples taken September 7, 1978 and October 19, 1978. The September 7, 1978 samples included a gaseous waste sample from #7 Gas Decay Tank; a liquid waste sample from the Clean Waste Holdup Tank and a HSL spiked liquid sample, HSL-6D. The October 19, 1978 samples included the plant vent stack particulate filter and charcoal cartridge; liquid waste from the Clean Waste Holdup Tank and a spiked particulate filter #43. Also included in this report are the strontium results for the March 28, 1978 split samples and the corrected results for Cs-134 on the March 28, 1978 liquid waste analysis. This correction had been previously submitted over the telephone.

Analytical results for the September 7, 1978 split samples are non-acidified. The split samples taken October 19, 1978 were acidified prior to analysis.

Should you have any questions, feel free to contact me.

  
D. V. Shaller  
Plant Manager

DVS/law

cc: R. W. Jurgensen  
R. F. Kroeger  
J. E. Dolan  
K. R. Baker  
R. C. Callen  
Office of Inspection & Enforcement  
R. Walsh, Esq  
P. Steketee, Esq  
PNSRC  
J. F. Stietzel

7812070216

A007  
S  
11

R

UNITED STATES DEPARTMENT OF ENERGY  
IDAHO OPERATIONS OFFICE  
ANALYTICAL CHEMISTRY BRANCH  
SAMPLE RECORD SHEET

REFERENCE: HEALTH SERVICE  
LABORATORY

Routine \_\_\_\_\_ URGENT Y

SERIAL NO. \_\_\_\_\_

SAMPLE FROM: B.C. Cook, Units 1 and 2

SAMPLES RECEIVED: \_\_\_\_\_

ANALYZED BY: \_\_\_\_\_

COLLECTED BY: IE III

ANALYSIS COMPLETED: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_

SECTION CHIEF

DATE SUBMITTED: 11/18

NOTIFIED: \_\_\_\_\_

DATE: \_\_\_\_\_

| SAMPLE |      |          | SAMPLE DESCRIPTION  | ANAL. FOR | INST. USED | QUANT. USED | DATE CNTD.         | COUNT TIME | GROSS COUNT                | BKGD. | NET COUNT                                  | RESULT ± 1 σ      |
|--------|------|----------|---------------------|-----------|------------|-------------|--------------------|------------|----------------------------|-------|--|-------------------|
| DATE   | TIME | LOCATION |                     |           |            |             |                    |            |                            |       |  |                   |
|        |      |          | 1.5 ml Vials        | Grav      | h-20       |             |                    |            | $6.452 \times 10^{-3}$     |       | $\mu\text{Ci/ml} \pm 4.839 \times 10^{-5}$ |                   |
|        |      |          | location:           | h-1       |            |             |                    |            | $3.348 \times 10^{-2}$     |       | $\mu\text{Ci/ml} \pm 2.009 \times 10^{-5}$ |                   |
|        |      |          | 1.5 ml Vials        | Grav      |            |             |                    |            |                            |       |  |                   |
|        |      |          | Sampled 9/1/78      | Grav      |            |             | Co <sup>57</sup>   |            | $5.890 \times 10^{-6} \pm$ |       | $2.80 \times 10^{-6}$                      | $\mu\text{Ci/cc}$ |
|        |      |          | Time: 10:40 EDT     | Grav      | Scan       |             | Cs <sup>134</sup>  |            | $2.219 \times 10^{-3} \pm$ |       | $1.04 \times 10^{-5}$                      | "                 |
|        |      |          |                     |           |            |             | I <sup>131</sup>   |            | $2.604 \times 10^{-5} \pm$ |       | $8.82 \times 10^{-6}$                      | "                 |
|        |      |          |                     |           |            |             | Cs <sup>137</sup>  |            | $2.866 \times 10^{-3} \pm$ |       | $1.46 \times 10^{-5}$                      | "                 |
|        |      |          |                     |           |            |             | Ag <sup>108m</sup> |            | $1.980 \times 10^{-4} \pm$ |       | <del>1.72</del> $8.75 \times 10^{-6}$      | "                 |
|        |      |          |                     |           |            |             | Zr <sup>97</sup>   |            | $3.511 \times 10^{-4} \pm$ |       | $1.72 \times 10^{-4}$                      | "                 |
|        |      |          |                     |           |            |             | Nb <sup>95</sup>   |            | $6.757 \times 10^{-5} \pm$ |       | $6.08 \times 10^{-6}$                      | "                 |
|        |      |          |                     |           |            |             | Co <sup>58</sup>   |            | $2.90 \times 10^{-4} \pm$  |       | $3.0 \times 10^{-5}$                       | "                 |
|        |      |          | Count data on:      |           |            |             | Mn <sup>54</sup>   |            | $1.288 \times 10^{-4} \pm$ |       | $5.42 \times 10^{-6}$                      | "                 |
|        |      |          | 10/2/78             |           |            |             | Co <sup>60</sup>   |            | $8.523 \times 10^{-4} \pm$ |       | $8.26 \times 10^{-6}$                      | $\mu\text{Ci/cc}$ |
|        |      |          | Decay correct shown |           |            |             |                    |            |                            |       |  |                   |
|        |      |          | 10/5 EDT 9/1/78     |           |            |             |                    |            |                            |       |  |                   |

\* RANDOM UNCERTAINTIES REPORTED ARE 1 STANDARD DEVIATION, 1 σ SMALL NEGATIVE AND OTHER RESULTS ≤ 2 σ ARE INTERPRETED BY HSL AS INCLUDING "ZERO" OR AS NOT DETECTED. IF APPROPRIATE, ESTIMATES OF POSSIBLE SYSTEMATIC ERRORS ARE REPORTED IN PARENTHESES.

UNITED STATES DEPARTMENT OF ENERGY  
IDAHO OPERATIONS OFFICE  
ANALYTICAL CHEMISTRY BRANCH  
SAMPLE RECORD SHEET

REFERENCE: HEALTH SERVICE  
LABORATORY

Routine \_\_\_\_\_ URGENT \_\_\_\_\_

SERIAL NO. \_\_\_\_\_

SAMPLE FROM: P.C. Cook, Units 1 and 2

SAMPLES RECEIVED: \_\_\_\_\_

ANALYZED BY: \_\_\_\_\_

COLLECTED BY: S. C. C. III

ANALYSIS COMPLETED: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_

SECTION CHIEF

DATE SUBMITTED: 11/78

NOTIFIED: \_\_\_\_\_

DATE: \_\_\_\_\_

| SAMPLE         |      |      | SAMPLE DESCRIPTION | ANAL. FOR | INST. USED | QUANT. USED | DATE CNTD. | COUNT TIME        | GROSS COUNT                | BKGD. | NET COUNT                              | RESULT $\pm 1 \sigma$ |
|----------------|------|------|--------------------|-----------|------------|-------------|------------|-------------------|----------------------------|-------|--|-----------------------|
| NO.            | DATE | HOUR |                    |           |            |             |            |                   |                            |       |  |                       |
|                |      |      | Gas Sample         | Gas       | Sample     |             |            |                   |                            |       |  |                       |
|                |      |      | Location:          |           |            |             |            |                   |                            |       |  |                       |
|                |      |      | 1 G.D.L.           |           |            |             |            | Xe-133M           | $1.684 \times 10^{-4} \pm$ |       | $6.113 \times 10^{-6}$                 |                       |
|                |      |      | Sampled: 9/1/78    |           |            |             |            | Xe-135            | $9.268 \times 10^{-5} \pm$ |       | $3.573 \times 10^{-5}$                 |                       |
|                |      |      | Time: 1115         |           |            |             |            | Kr-85             | $3.478 \times 10^{-4} \pm$ |       | $2.097 \times 10^{-5}$                 |                       |
|                |      |      |                    |           |            |             |            | Xe-133            | $1.329 \times 10^{-2} \pm$ |       | $2.525 \times 10^{-5}$                 |                       |
|                |      |      |                    |           |            |             |            |                   |                            |       |  |                       |
|                |      |      |                    |           |            |             |            |                   |                            |       |  |                       |
|                |      |      |                    |           |            |             |            |                   |                            |       |  |                       |
|                |      |      |                    |           |            |             |            |                   |                            |       |  |                       |
|                |      |      | HSL Spike 6D       |           |            |             |            | Co <sup>57</sup>  | $1.522 \times 10^{-4} \pm$ |       | $8.219 \times 10^{-7} \mu\text{Ci/cc}$ |                       |
|                |      |      |                    |           |            |             |            | Cs <sup>134</sup> | $3.363 \times 10^{-4} \pm$ |       | $2.220 \times 10^{-6} \mu\text{Ci/cc}$ |                       |
|                |      |      | Decay correct to:  |           |            |             |            | Co <sup>60</sup>  | $3.568 \times 10^{-4} \pm$ |       | $3.739 \times 10^{-6} \mu\text{Ci/cc}$ |                       |
|                |      |      | 9/1/78 1115        |           |            |             |            |                   |                            |       |  |                       |
| MARCH 28, 1978 |      |      | Split Sample       |           |            |             |            | Sr <sup>89</sup>  | $2.0 \times 10^{-8}$       |       | $\mu\text{Ci/cc}$                      |                       |
|                |      |      |                    |           |            |             |            | Sr <sup>90</sup>  | $4.80 \times 10^{-7} \pm$  |       | $5.0 \times 10^{-8} \mu\text{Ci/cc}$   |                       |
|                |      |      |                    |           |            |             |            | Cs <sup>134</sup> | $1.06 \times 10^{-3}$      |       | instead of $17.06 \times 10^{-3}$      |                       |

\* RANDOM UNCERTAINTIES REPORTED ARE 1 STANDARD DEVIATION. 1  $\sigma$  SMALL NEGATIVE AND OTHER RESULTS  $\leq 2 \sigma$  ARE INTERPRETED BY HSL AS INCLUDING "ZERO" OR AS NOT DETECTED. IF APPROPRIATE, ESTIMATES OF POSSIBLE SYSTEMATIC ERRORS ARE REPORTED IN PARENTHESES.

U.S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION  
IDAHO OPERATIONS OFFICE  
ANALYTICAL CHEMISTRY BRANCH  
SAMPLE RECORD SHEET

Routine \_\_\_\_\_ URGENT \_\_\_\_\_

SERIAL NO. \_\_\_\_\_

|  |   |   |
|--|---|---|
| SPECIMEN FROM: <u>                    </u><br>COLLECTED BY: <u>                    </u><br>DATE SUBMITTED: <u>                    </u> | SAMPLES RECEIVED: <u>                    </u><br>ANALYSIS COMPLETED: <u>                    </u><br>NOTIFIED: <u>                    </u> DATE: <u>                    </u> | ANALYZED BY: <u>                    </u><br>APPROVED BY: <u>                    </u><br><div style="text-align: right;">SECTION CHIEF</div> |
|--|---|---|

[illegible]

\* RANDOM UNCERTAINTIES REPORTED ARE 1 STANDARD DEVIATION, 1 $\sigma$ . SMALL NEGATIVE AND OTHER RESULTS  $\leq 2\sigma$  ARE INTERPRETED BY HSL AS INCLUDING "ZERO" OR AS NOT DETECTED. IF APPROPRIATE, ESTIMATES OF POSSIBLE SYSTEMATIC ERRORS ARE REPORTED IN PARENTHESES.

U.S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION  
IDAHO OPERATIONS OFFICE  
ANALYTICAL CHEMISTRY BRANCH  
SAMPLE RECORD SHEET

Routine        URGENT       

SERIAL NO. \_\_\_\_\_

|   |   |   |
|---|---|---|
| TITLE FROM: <u>                    </u><br>COLLECTED BY: <u>                    </u><br>DATE SUBMITTED: <u>                    </u> | SAMPLES RECEIVED: <u>                    </u><br>ANALYSIS COMPLETED: <u>                    </u><br>NOTIFIED: <u>                    </u> DATE: <u>                    </u> | ANALYZED BY: <u>                    </u><br>APPROVED BY: <u>                    </u><br><div style="text-align: right;">SECTION CHIEF</div> |
|---|---|---|

[illegible]

\* RANDOM UNCERTAINTIES REPORTED ARE 1 STANDARD DEVIATION, 1 $\sigma$ . SMALL NEGATIVE AND OTHER RESULTS  $\leq 2\sigma$  ARE INTERPRETED BY HSL AS INCLUDING "ZERO" OR AS NOT DETECTED. IF APPROPRIATE, ESTIMATES OF POSSIBLE SYSTEMATIC ERRORS ARE REPORTED IN PARENTHESES.

\* RANDOM UNCERTAINTIES REPORTED ARE 1 STANDARD DEVIATION, 1 $\sigma$ . SMALL NEGATIVE AND OTHER RESULTS  $\leq 2\sigma$  ARE INTERPRETED BY HSL AS INCLUDING "ZERO" OR AS NOT DETECTED. IF APPROPRIATE, ESTIMATES OF POSSIBLE SYSTEMATIC ERRORS ARE REPORTED IN PARENTHESES.

\* RANDOM UNCERTAINTIES REPORTED ARE 1 STANDARD DEVIATION. 1  $\sigma$  SMALL NEGATIVE AND OTHER RESULTS  $\leq 2\sigma$  ARE INTERPRETED BY HSL AS INCLUDING "ZERO" OR AS NOT DETECTED. IF APPROPRIATE, ESTIMATES OF POSSIBLE SYSTEMATIC ERRORS ARE REPORTED IN PARENTHESES.