



GPU Nuclear
P.O. Box 388
Forked River, New Jersey 08731
609-693-6000
Writer's Direct Dial Number:

October 27, 1982

Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Crutchfield:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Contamination Control

During a recent site facility upgrading project, an uncertainty was identified which pertains to the control of radioactive material. The project consists of paving an area near our New Radwaste Building. The work requires proper grading and excavation of approximately 17,000 cubic feet of soil in order to facilitate proper drainage, work area requirements, etc. As a normal precaution, soil samples of this area were taken and analyzed for activity. The total number of samples and activity discovered is included as Attachment I to this letter. As can be seen from the data, low level activity is present; however, it is well below the limits established in 10 CFR Part 30.

Our problem, and possibly a problem at other utilities, is that there are no definitive regulations or even guidelines which address the "de minimis" waste issue. The disposition of material such as we have, comprises the scope of our problem. The various burial sites do not regard this as contaminated material and will reject such shipments.

We have contacted our project manager in NRR, and the resident inspectors at the Oyster Creek site regarding our problem. Their recommendation was to either: (1) prepare a submittal requesting a change to our license, or (2) indicate and provide a justification for our proposed actions.

Commencing on November 1, 1982, we plan to remove the top soil to a depth of six (6) to eight (8) inches from the areas to be graded and bury this in trenches with a minimum cover of six (6) inches of clean soil. In the near future, this area may be paved with asphalt. Attachment II to this letter provides the justification for our actions. A request for a license change, in order to avoid confusion and possible misinterpretations regarding any future similar situations, will also be submitted.

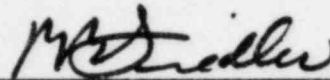
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October 27, 1982

Our actions will provide a greater degree of control over the soil; however, whether we leave the soil as is, or bury it in trenches, we have determined the contamination levels would not affect the health and safety of the public or personnel at this site. If you have any additional questions, please contact me or Mr. Michael Laggart of my staff at (609) 971-4643.

Very truly yours,



Peter B. Fiedler
Vice President and Director
Oyster Creek

PBF:MWL:lse
Attachment

cc: Mr. J. Lombardo
NRC Project Manager - Oyster Creek
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

NRC Resident Inspector
Oyster Creek Nuclear Generating Station
Forked River, NJ 08731

Mr. Ronald C. Haynes, Administrator
Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

ATTACHMENT 1

SURFICIAL SOIL SAMPLES COLLECTED PRIOR TO PAVING OF RCA

Samples Collected on October 8 and 9, 1982,
Analyzed at Radiation Management Corporation, Philadelphia, PA
on October 10 and 11, 1982

- NOTES: 1. All units are pCi/Kg (wet), % errors are 2 std. dev.
2. ----- = not detected
3. Sample locations were taken over approximately 29,000 sq. ft.
4. Samples designated "A" were taken from an area previously graded.

Sample #	Co 60	Cs 137	Cs 134	Mn 54
A1	-----	-----	-----	-----
A2	-----	306.7 <u>+25.4%</u>	-----	-----
A3	126.4 <u>+60.2%</u>	97.4 <u>+59%</u>	-----	-----
A4	1594 <u>+10.5%</u>	1814 <u>+10%</u>	-----	-----
A5	-----	109.4 <u>+52.</u>	-----	-----
A6	344.9 <u>+28%</u>	468.9 <u>+15.</u>	-----	-----
A7	-----	-----	-----	-----
A8	701.8 <u>+20.6%</u>	745.8 <u>+14%</u>	-----	-----
A9	-----	-----	-----	-----
A10	-----	-----	-----	-----
A11	-----	57.3 <u>+85%</u>	-----	-----
B1	2762 <u>+10%</u>	2432 <u>+10%</u>	-----	-----
B2	184 <u>+56.2%</u>	264.3 <u>+25.8%</u>	-----	-----
B3	2135 <u>+10%</u>	2435 <u>+10%</u>	-----	-----
B4	14312 <u>+10%</u>	8002 <u>+10%</u>	784.7 <u>+20.6%</u>	-----
B5	39066 <u>+10%</u>	28366 <u>+10%</u>	1822 <u>+12%</u>	439.5 <u>+58%</u>
B6	3621 <u>+10%</u>	2900 <u>+10%</u>	136 <u>+40.4%</u>	-----

Sample #	Co 60	Cs 137	Cs 134	Mn 54
B7	2484 <u>+10%</u>	2296 <u>+10%</u>	-----	-----
B8	1455 <u>+10.4%</u>	1071 <u>+15.6%</u>	-----	-----
B9	7233 <u>+10%</u>	8570 <u>+10%</u>	388.7 <u>+32.8%</u>	-----
B10	1690 <u>+10.1%</u>	1663 <u>+10%</u>	-----	-----
B11	24251 <u>+10%</u>	5714 <u>+10%</u>	540.7 <u>+36.6%</u>	2556 <u>+10.8%</u>
B12	1479 <u>+11.8%</u>	1514 <u>+10%</u>	70.7 <u>+57.6%</u>	-----
B13	3054 <u>+10%</u>	1909 <u>+10%</u>	127.8 <u>+43%</u>	-----
B14	40000	24000	2700	-----
This sample counted at Oyster Creek Chemistry Dept., as a check prior to shipping				
B15	1966 <u>+10%</u>	4299 <u>+10%</u>	137.4 <u>+33.6%</u>	-----
C1	826.4 <u>+18.2%</u>	688.4 <u>+15.2%</u>	-----	-----
C2	14090 <u>+10%</u>	11110 <u>+10%</u>	206.9 <u>+25%</u>	-----
C3	3017 <u>+10%</u>	1967 <u>+10%</u>	-----	-----
C4	4055 <u>+10%</u>	4927 <u>+10%</u>	237.5 <u>+41.8%</u>	-----
C5	1567 <u>+11.4%</u>	1348 <u>+10.6%</u>	-----	-----
C6	3103 <u>+10%</u>	3511 <u>+10%</u>	303 <u>+33.2%</u>	-----
C7	3651 <u>+10%</u>	3585 <u>+10%</u>	199.6 <u>+55.8%</u>	-----
C8	4009 <u>+10%</u>	3807 <u>+10%</u>	335 <u>+29%</u>	-----
C9	1190 <u>+16%</u>	1347 <u>+12.5%</u>	-----	-----
C10	4714 <u>+10%</u>	3066 <u>+10%</u>	203 <u>+32.6%</u>	-----
C11	1787 <u>+10%</u>	1723 <u>+10%</u>	143 <u>+36%</u>	-----
C12	768 <u>+18.2%</u>	819 <u>+14.2%</u>	-----	-----
C13	605 <u>+18.4%</u>	553 <u>+15.2%</u>	-----	-----
D1	Impossible to collect sample in this location (computer selected) - under chromate storage tank.			
D2	2014 <u>+11.2%</u>	1594 <u>+10%</u>	-----	-----
D3	503 <u>+20.2%</u>	446 <u>+19%</u>	-----	-----

Sample #	Co 60	Cs 137	Cs 134	Mn 54
D4	518 <u>+76.8%</u>	62.4 <u>+77.2%</u>	-----	-----
D5	1722 <u>+10.4%</u>	1422 <u>+10%</u>	-----	-----
D6	863 <u>+15.6%</u>	625 <u>+14.2%</u>	-----	-----
D7	1126 <u>+15.4%</u>	777 <u>+21.0%</u>	-----	-----
D8	689 <u>+18.2%</u>	634 <u>+16.2%</u>	-----	-----
D9	1575 <u>+10%</u>	1677 <u>+10%</u>	-----	-----
E1	1110 <u>+15.2%</u>	510 <u>+21.8%</u>	-----	-----
E2	540 <u>+17.8%</u>	377 <u>+19.6%</u>	-----	-----
E3	913 <u>+16.2%</u>	844 <u>+14.4%</u>	-----	-----
E4	43470 <u>+10%</u>	5051 <u>+10%</u>	111 <u>+82.2%</u>	-----
E5	581 <u>+17.4%</u>	412 <u>+22.2%</u>	-----	-----
E6	1292 <u>+12.2%</u>	615 <u>+16.8%</u>	-----	-----
E7	1004 <u>+15%</u>	784 <u>+14.8%</u>	-----	-----

ATTACHMENT II

Justification of the Proposed Disposal Method

Our justification from a health and safety perspective of the proposed burial within the owner controlled area is the following:

1. A shallow burial below a thin layer of clean topping material will prevent further migration of the material via wind blown dust. The dispersal of the contamination over the entire sampled area indicates ready transport by the wind.
2. Environmental samples show no transport of the material into the ground water downstream of the contaminated area. Shallow burial should not alter the diffusion characteristics of the material.
3. The external dose rate from this material, when buried, will contribute less than 500 milli-rem per year to any member of the population. Assuming continuous occupancy and no shielding from the clean covering material, NCRP 50, Table 2-17 predicts dose rates at one meter to be approximately 30 micro R/hr. This calculation assumes uniform soil concentrations of 5 pico curies per gram of cobalt 60 and 4 pico curies per gram of cesium 137.