

SUPPLEMENT TO REPORTABLE OCCURRENCE REPORT  
NO. 50-219/79/10-3L AND NO. 50-219/79/26-3L

ANALYSIS OF  
OCCURRENCE:

Prior to any digging in the area, core samples were taken at varying depths. Sample analyses showed no activity above normal background. Samples of soil and water taken during the initial excavation showed detectable activity in the immediate area of the DWEDT line. As excavation continued, sampling and analysis of the soil showed  $\text{Co}^{60}$  and  $\text{Cs}^{137}$  to be present in trace amounts. Since no effort was made to segregate the dirt during the excavation, it was not possible to determine how localized the activity was. Accurate assessment of contamination was hampered by the discovery of another leak on August 7, 1979.

When excavation reached the level of the water table, dewatering was started. The initial water samples taken during this operation showed detectable  $\text{Co}^{60}$  and  $\text{Cs}^{137}$ . This is somewhat attributable to residual contamination in the hole from the digging. It was also realized that sample bottles from the chemistry laboratory were used to collect samples. These had previously been used for radioactive samples. As dewatering continued, only scattered trace activity was detected at background levels. Sampling and low level analysis at the plant is severely limited due to the close proximity to sources of contamination as well as counting instrument background. The background levels observed in water samples support the belief that radioactivity from the pipe leaks did not get into the water table. This was further substantiated by analysis of water from the Oyster Creek domestic water well during this period which showed no detectable levels of radioactivity.

At completion of excavation, several soil samples were obtained from the bottom of the pit. They showed no detectable levels of activity. From the sampling and analysis performed during the project, it is concluded that radioactivity released from the pipe leaks was contained within the area of the excavation. It actually was highly localized in the vicinity of the leaks and only found at other points as a result of the excavation and repair work being performed in the area.

CORRECTIVE  
ACTION:

Following the analysis of the final soil samples, the concrete floor and walls of the vault enclosure were poured. This insured containment of radioactivity in the event of any further pipe leaks.

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