The following Environmental Radiological Monitoring sample is an anamalous measurement based on the criteria outlined in the James A. FitzPatrick Nuclear Power Plant Technical Specifications Appendix B, Paragraph 5.6.2.b:

MOLLUSK SAMPLE ACTIVITY pCi/gram (wet)

	Sample Location *	Date	Mn - 54	<u>Co-60</u>
1.	Off-Site Oswego	10/02/78	< 0.02	< 0.02
2.	On-Site NMPW	10/02/78	0.03	< 0.22 ± 0.03
3.	On-Site NMPP	10/06/78	1.10 ± 0.1	1 < 0.03

^{*} See Technical Specification Appendix B for location details.

The activity levels of Co-60 and Mn-54 in samples 2 and 3, respectively, are greater than ten times the control station (sample 1 above) activity for the same sample period.

The control station value is based on ten times the Minimum Detectable Level (MDL) value (3 sigma). Using MDL values to evaluate anamalous measurements may cause the comparison to be biased by the control station sample size and count time. In this instance the MDL's for Mn-54 and Co-60 are very low as indicated in the above table. The above listed MDL values are six times and four times lower, respectfully for Mn-54 and Co-60, than the detection capabilities listed in the NRC, April 11, 1978, Branch Technical position.

The total liquid release for 1978 from the plant is low as indicated in the table below. Integrated plant releases of this magnitude would not produce an environmental impact, normally.

Isotope	Release to Date (12/19/78)		
Mn-54	8.10 (E-2) Ci		
Co-60	1.27 (E-1) Ci		

Fresh water mollusks are not normally consumed by humans and are in the aquatic food chain only to a limited extent. Mollusks are not considered to be in the human food chain for Lake Ontario in the region of the Nine Mile Point promontory, making an accurate dose to man calculations difficult. A maximum dose estimate can be made using inflated parameters. A dose estimate based on an adult human consuming 5 Kg of fresh water mollusks per year, based on ingestion factors, would result in a dose of 0.01 mRem/year to the whole body and 0.12 mRem/year to the gastrointestinal track. These dose estimates, even though based on unrealistically high consumption factors, are of insignificant intensity in comparison to natural background.

NOTE: LER 78-068/04T-0, 78-072/04T-0, 78-077/04T-0 and 78-087/04T-0 are similar events.