Parcel F Finger Pier draft RACR review notes

ROCs: Cs-137, Pu-239, Ra-226, Sr-90
Scope: Finger Piers 1, 2, and 3 (Ship Berths 23 - 28, 30 - 35, 37 – 42)

WP: *Final Revision 2, Radiological Scoping Surveys Work Plan, Parcel F Structures* (APTIM, 2019)

FCR-003—clarifies RS-700 procedures and revises ILs.
FCR-004—concrete reference background areas (RBAs).
FCR-006—follow-up locations via gamma spectral analysis.

Used RS700 for gamma scan of most horizontal surface; 3 x 3 for other gamma scan

	Scope	**IL**	**Locations > IL**	
Gamma scan (RS-700 and 3 x 3)	100% accessible surface	SU average + 3SD	92	
Gamma static (3 x 3)	Where gamma scan > IL	RBA ave + 3 SD	None	
Gamma spectroscopy	Where gamma static > IL - NONE			
Alpha/beta scan (in practice, 6-sec statics instead of scan) (Ludlum 43-37 GPD / 2360 ratemeter)	25% accessible surface and where gamma scan > IL (87,471 measurements)	RGs (*100 dpm/100cm2; for alpha: 1000 for beta)*	3,864 alpha measurements; no beta ***	
Alpha/beta static (2 min)	169 systematic and where alpha/beta scan > IL (111 biased)	50% of RGs	none	
Alpha/beta smears	Same as above, except grates? Or based on statics?	20% RGs	None +++	
Solid samples	3 locations (+ 2 BG)		None > BG (Ra-226 0.3 to 0.9 pCi/g)	

*** Alpha scan MDC: 173 to 198 dpm/100 cm2 for concrete (>RG of 100)
+++ Alpha smear MDC: 12 dpm/100cm2. Beta smear MDC: 70 dpm/100cm2