Tritium Laboratory
January 28, 2009

COURTESY SWAB REPORT #506

SWAB DATE: 11 January 2009

R/V Knorr

_____
Dr. James D. Happell
Research Associate Professor

Distribution:
SWAB Committee
Al Gagnon

COMMENTS TO SWAB REPORTS 10 October 2001

Technical data below applies unless otherwise indicated.

Typical instrument background for tritium and C14: 7 and 15 cpm, respectively.

All data are means of at least three runs and are expressed in dpm/m^2 extracted; machine and wash solution blanks have been substracted.

Typical error: ±10% or ±30 dpm/m^2, whichever is larger, for both tritium and C14.

Criteria for SWAB Results

Category	Tritium (dpm/m^2)	C14 (dpm/m^2)	Recommendations
A	< 500	< 500	No action
B *	500-10,000	500-10,000	Needs cleaning before natural tracer work. No health hazard. Does not apply to Radiation Vans
C **	10,000-100,000	10,000-50,000	Must be cleaned before any use. Includes Radiation Vans
D ***	>100,000	>50,000	May be a health hazard. Notify local Radiation Safety Official

Note: C14 and S35 have peak energies of 156 and 167 KeV, respectively; thus S35 will be registered as C14 by our counting techniques.

Recommended Cleaning Procedure

Wearing ordinary household rubber gloves:

Tritium: Wash and scrub with radioactive cleanup detergent such as COUNT-OFF (50 ml or 1/4 cup COUNT-OFF to 1 gallon of water), using sponges to distribute solution and reabsorb it.

C14: Wash with 1% sulfuric or 2% hydrochloric (muriatic) acid with good ventilation (will dissolve carbonates, releasing $^{14}CO_2$). Follow up with wash as if for tritium.

Disposal of Cleaning Materials (gloves, sponges, etc.)

Categories A and B: Dispose as ordinary garbage.
C and D: Dispose in radiation waste system.

Note: In case Category C or D is encountered, we try to notify the institution promptly by telephone.

REPORT FOR COURTESY SWAB # 506

LOCATION : Punta Arenas, CHILE
TECHNICIAN: Al Gagnon, WHOI
VESSEL/LAB: *R/V Knorr*

DATE : 11 January 2009
STATUS: Areas tested free were free of radioisotope contamination

SAMPLE #	SAMPLE IDENTIFICATION	NET ACTIVITY EXTRACTED 3H dpm/m2	14C dpm/m2
1	Machine Blank	-	-
2	Initial bucket blank	0	0
	Main Lab (see Figure 1)		
3	Deck near main computing/watchstand fwd.	0	0
	Main Deck (see Figure 1)		
4	Aft stbd side near WHOI coring van	7	0
	01 Deck (see Figure 2)		
5	Deck Portside, mid-ship, previous location of rad van [KNR195-2]	0	13
	02 Deck (see Figure 2)		
6	Stbd, fwd WHOI rad van, backdoor entrance	0	0
7	Stbd, fwd WHOI rad van, frontdoor entrance	21	0
8	Front door entrance of URI Chemistry van, center deck	0	0
9	Final bucket blank	0	0