N00102.AR.000345
NSY PORTSMOUTH
5090.3a

PHASE II SEAFOOD RISK ASSESSMENT TABLES

HARBOR LOCATIONS
PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

PREPARED FOR THE
NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
BY THE NAVY ENVIRONMENTAL HEALTH CENTER
NORFOLK, VIRGINIA
APRIL 1996

DEPARTMENT OF THE NAVY
NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
10 INDUSTRIAL HIGHWAY
MAIL STOP, #82
LESTER, PA 19113-2090

IN REPLY REFER TO

5090
Code 1823/JMC

APR 18 1996

Ms. Nancy Beardsley
Maine Department of Environmental Protection
State House Station 17
Augusta, ME 04333-0017

Ms. Meghan Cassidy
U.S. Environmental Protection Agency Region I
JFK Federal Building, HAN-CAN 1
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Subj: PHASE II OFFSHORE RISK ASSESSMENT TABLES, PORTSMOUTH NAVAL SHIPYARD, KITTERY, ME

Dear Ms. Beardsley and Ms. Cassidy:

Enclosed are the revised seafood risk assessment tables for the Phase II data. The tables have been developed in three ways; Portsmouth Harbor data alone, reference data alone, and the two data sets combined. If you have any questions on this matter please call me at (610) 595-0567 extension 117.

Sincerely,

Jim Conroy

JAMES M. CONROY, PE
LT, CEC, USN
Remedial Project Manager
By direction of the
Commanding Officer

Encl: Phase II Risk Assessment Tables, Harbor Locations
Phase II Risk Assessment Tables, Reference Locations
Phase II Risk Assessment Tables, Harbor and Reference Locations

cc:
NHBPHS (J. Dreisig, w/encl)
ATSDR (V. Smith, w/encl)
ATSDR (L. House, w/o encl)
PNS (Code 121.10, F. Endyke, w/encl)

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TABLE 2-1 PHASE II PORTSMOUTH HARBOR
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	95% UCL Average * Pseudo-pleuronectes americanus filet flounder flesh	MAXIMUM Pseudo-pleuronectes americanus filet flounder flesh	95% UCL Average Pseudo-pleuronectes americanus liver flounder liver	Maximum Pseudo-pleuronectes americanus liver flounder liver	95% UCL Average Homarus americanus tail/claw Adult Lobster
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
Aluminum	0.628	0.795	1.920	2.416	0.421
Silver	0.038	0.033	*0.218*	*0.227*	0.096
10% of total Arsenic	0.166	0.197	0.154	0.186	0.263
Cadmium	0.004	0.004	0.064	0.072	0.004
assume Chromium III	0.060	0.070	0.097	0.103	0.065
assume Chromium IV	0.060	0.070	0.097	0.103	0.065
Copper	0.082	0.104	*6.813*	*7.486*	4.977
Iron	1.236	1.546	119.334	134.469	1.682
Manganese	0.023	0.023	*0.442*	*0.461*	0.367
Nickle	0.189	0.189	0.190	0.193	0.041
Lead	0.020	0.024	0.109	0.109	0.014
Zinc	3.656	3.767	31.540	32.045	23.631
Mercury (Total)	0.056	0.061	*0.059*	*0.072*	0.155
Methyl-Mercury	*0.176*	*0.071*		0.019	*0.074*
Fluorene	0.00020	0.00021	0.00123	0.00123	0.00066
Phenanthrene	0.00056	0.00059	0.00289	0.00305	0.00318
Anthracene	0.00038	0.00055	0.00087	0.00088	0.00051
C1-phenanthrene + anthracene	0.00066	0.00069	0.00213	0.00250	0.00261
C2-phenanthrene + anthracene	0.00040	0.00043	0.00327	0.00403	0.00248
C3-phenanthrene + anthracene	0.00045	0.00045	0.00467	0.00654	0.00180
C4-phenanthrene + anthracene	0.00089	0.00105	0.00371	0.00496	0.00190
Sum C1:C4-phenanthrene + anthracene	0.00240	0.00261	0.01377	0.01803	0.00878
Fluoranthene	0.00026	0.00027	0.00181	0.00223	0.00820
Pyrene	0.00053	0.00060	0.00149	0.00152	0.01351
Benz(a)anthracene	0.00064	0.00058	0.00096	0.00097	0.00241
Chrysene	0.00059	0.00059	0.00115	0.00120	0.00375
Sum of benzofluoranthenes as benzo(b) fluoranthene	0.00020	0.00022	0.00107	0.00114	0.00801
Benzo(e)pyrene	0.00018	0.00019	0.00115	0.00134	0.00314
Benzo(a)pyrene	0.00013	0.00013	0.00630	0.00968	0.00354
Perylene	0.00118	0.00107	0.00106	0.00164	0.00122
Indeno(1,2,3-cd)pyrene	0.00004	0.00004	0.00148	0.00162	0.00184
Dibenz(a,h)anthracene	0.00150	0.00135	0.00171	0.00187	0.00023
Benzo(g,h,i)perylene	0.00148	0.00130	0.00221	0.00214	0.00293
Sum of measured PAHs	0.00412	0.00444	0.02939	0.03705	0.06170

TABLE 2-1 PHASE II PORTSMOUTH HARBOR
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	Maximum Homarus americanus tail/claw Adult Lobster	95% UCL Average* Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Maximum Homarus americanus hepatopancreas (Tomalley) Adult Lobster	95% UCL Average* Mytilus edulis mussel indigenous	Maximum Mytilus edulis mussel indigenous
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
Aluminum	0.476	3.742	7.520	88.412	164.160
Silver	0.107	0.463	0.569	0.056	0.126
10% of total Arsenic	0.347	0.612	0.717	0.166	0.209
Cadmium	0.006	5.489	9.922	0.374	0.603
assume Chromium III	0.075	0.157	0.231	6.140	15.946
assume Chromium IV	0.075	0.157	0.231	6.140	15.946
Copper	*7.244*	249.335	516.083	2.684	5.522
Iron	2.213	61.947	108.511	210.705	345.000
Manganese	0.512	2.415	2.776	40.984	164.560
Nickle	0.042	0.208	0.234	*6.878*	*18.760*
Lead	0.016	0.171	0.305	7.542	27.400
Zinc	23.930	25.158	32.606	19.330	34.544
Mercury (Total)	0.183	*0.140*	*0.256*	*0.105*	0.753
Methyl-Mercury	*0.065*	0.143	0.060		
Fluorene	0.00093	0.01084	0.01624	0.00820	0.05892
Phenanthrene	0.00464	0.08641	0.17627	0.04983	0.46854
Anthracene	0.00052	0.03876	0.08924	0.00825	0.04999
C1-phenanthrene + anthracene	0.00371	0.10373	0.20177	0.03036	0.23701
C2-phenanthrene + anthracene	0.00360	0.09351	0.16186	0.02701	0.14111
C3-phenanthrene + anthracene	0.00251	0.06384	0.10975	0.01476	0.06166
C4-phenanthrene + anthracene	0.00258	0.02887	0.03528	0.02238	0.12790
Sum C1:C4-phenanthrene + anthracene	0.01240	0.28994	0.50865	0.09452	0.56769
Fluoranthene	0.01215	0.22207	0.44399	0.08070	0.72610
Pyrene	0.02089	0.13873	0.27881	0.48772	0.48772
Benz(a)anthracene	0.00362	0.04459	0.09811	0.02729	0.23701
Chrysene	0.00564	0.07656	0.15299	0.02390	0.18221
Sum of benzofluoranthenes as benzo(b) fluoranthene	0.01220	0.11569	0.21784		
Benzo(e)pyrene	0.00464	0.05107	0.10033	0.01346	0.08138
Benzo(a)pyrene	0.00544	0.11280	0.18479	0.00953	0.07024
Perylene	0.00161	0.05355	0.06551	0.00406	0.02414
Indeno(1,2,3-cd)pyrene	0.00278	0.02039	0.04135	0.00644	0.02414
Dibenz(a,h)anthracene	0.00033	0.00440	0.00804	0.00337	0.00827
Benzo(g,h,i)perylene	0.00427	0.03083	0.06042	0.00560	0.02156
Sum of measured PAHs	0.09208	1.20334	2.35971	0.38821	2.95943

TABLE 2-1 PHASE II PORTSMOUTH HARBOR
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	95% UCL Average * Pseudo-pleuronectes americanus filet flounder flesh	MAXIMUM Pseudo-pleuronectes americanus filet flounder flesh	95% UCL Average Pseudo-pleuronectes americanus liver flounder liver	Maximum Pseudo-pleuronectes americanus liver flounder liver	95% UCL Average Homarus americanus tail/claw Adult Lobster
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
8 (2 4') Congener number; position of chlorines	0.00004	0.00005	0.00034	0.00040	0.00012
18 (2 2' 5)	0.00005	0.00005	0.00056	0.00057	0.34004
28 (2 4 4')	0.00018	0.00023	0.00330	0.00414	0.00014
52 (2 2' 5 5')	0.00020	0.00022	0.00348	0.00359	0.00012
44 (2 2' 3 5')	0.00003	0.00003	0.00056	0.00060	0.00004
66 (2 3' 4 4')	0.00041	0.00062	0.00911	0.01173	0.00023
101 (2 2' 4 5 5')	0.00094	0.00115	0.01803	0.01993	0.00025
PCB118	0.00166	0.00115	0.03983	0.04839	0.00094
153 (2 2' 4 4' 5 5')	0.01923	0.02270	0.16201	0.20900	0.00601
105 (2 3 3' 4 4')	0.00082	0.00114	0.02014	0.02679	0.00029
138 (2 2' 3 4 4' 5)	0.00339	0.00415	0.07721	0.08546	0.00099
187 (2 2' 3 4' 5 5' 6)	0.00106	0.00116	0.02398	0.02393	0.00046
128 (2 2' 3 3' 4 4')	0.00063	0.00082	0.01485	0.01841	0.00019
180 (2 2' 3 4 4' 5 5')	0.00128	0.00136	0.03474	0.03509	0.00040
170 (2 2' 3 3' 4 4' 5)	0.00053	0.00059	0.01312	0.01321	0.00015
195 (2 2' 3 3' 4 4' 5 6)	0.00019	0.00022	0.00526	0.00543	0.00005
206 (2 2' 3 3' 4 4' 5 5' 6)	0.00044	0.00051	0.01343	0.01378	0.00007
209 (2 2' 3 3' 4 4' 5 5' 6 6')	0.00022	0.00026	0.00434	0.00446	0.00003
Sum of PCB Congeners.	0.01566	0.01870	0.34733	0.37453	0.00600
Hexachlorobenzene	0.00007	0.00007	0.00113	0.00125	0.00009
Lindane (gamma-BHC)	0.00007	0.00008	0.00141	0.00182	0.00025
Alpha-chlordane as chlorodane	0.00034	0.00046	0.00798	0.00958	0.00008
Trans-nonachlor	0.00086	0.00108	0.02370	0.02763	0.00012
Heptachlor					
Heptachlor epoxide					
Mirex					
o,p -DDD					
p,p -DDD	0.00068	0.00076	0.01672	0.01706	0.00019
o,p -DDE					
p,p -DDE	0.00111	0.00116	0.04274	0.04794	0.00103
o,p -DDT					
p,p -DDT	0.00012	0.00013	0.00343	0.00335	0.00007
Aldrin					

TABLE 2-1 PHASE II PORTSMOUTH HARBOR
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	Maximum Homarus americanus tail/claw Adult Lobster	95% UCL Average* Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Maximum Homarus americanus hepatopancreas (Tomalley) Adult Lobster	95% UCL Average* Mytilus edulis mussel indigenous	Maximum Mytilus edulis mussel indigenous
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
8 (2 4') Congener number; position of chlorines	0.00012	0.00064	0.00072	0.00040	0.00041
18 (2 2' 5)	0.38796	0.00161	0.00203	0.00042	0.00043
28 (2 4 4')	0.00017	0.00161	0.00203	0.00020	0.00021
52 (2 2' 5 5')	0.00016	0.00862	0.01434	0.00037	0.00075
44 (2 2' 3 5')	0.00004	0.00194	0.00327	0.00017	0.00032
66 (2 3' 4 4')	0.00025	0.02800	0.03630	0.00013	0.00067
101 (2 2' 4 5 5')	0.00032	0.02410	0.03630	0.00135	0.00135
PCB118	0.00114	0.07438	0.08069	0.00108	0.00340
153 (2 2' 4 4' 5 5')	0.00728	0.12527	0.13874	0.01720	0.04050
105 (2 3 3' 4 4')	0.00036	0.02849	0.03092	0.00033	0.00121
138 (2 2' 3 4 4' 5)	0.00124	0.11132	0.12186	0.00181	0.00643
187 (2 2' 3 4' 5 5' 6)	0.00056	0.05117	0.05887	0.00068	0.00175
128 (2 2' 3 3' 4 4')	0.00024	0.01979	0.02190	0.00040	0.00153
180 (2 2' 3 4 4' 5 5')	0.00051	0.05507	0.02190	0.00024	0.00060
170 (2 2' 3 3' 4 4' 5)	0.00018	0.01938	0.02207	0.00016	0.00017
195 (2 2' 3 3' 4 4' 5 6)	0.00005	0.00652	0.00745	0.00010	0.00011
206 (2 2' 3 3' 4 4' 5 5' 6)	0.00009	0.01050	0.01198	0.00011	0.00011
209 (2 2' 3 3' 4 4' 5 5' 6 6')	0.00003	0.00515	0.00568	0.00009	0.00010
Sum of PCB Congeners.	0.00648	0.57455	0.63014	0.01012	0.02924
Hexachlorobenzene	0.00009	0.00578	0.00626	0.00074	0.00137
Lindane (gamma-BHC)	0.00026	0.00209	0.00231	0.00012	0.00012
Alpha-chlordane as chlorodane	0.00008	0.00884	0.01035	0.00026	0.00064
Trans-nonachlor	0.00012	0.02160	0.02766	0.00011	0.00042
Heptachlor				0.00010	0.00063
Heptachlor epoxide				0.00024	0.00025
Mirex				0.00006	0.00006
o,p -DDD				0.00034	0.00175
p,p -DDD	0.00022	0.04677	0.06586	0.00104	0.00280
o,p -DDE				0.00008	0.00031
p,p -DDE	0.00107	0.32887	0.36312	0.00155	0.00268
o,p -DDT				0.00031	0.00087
p,p -DDT	0.00007	0.02548	0.03158	0.00240	0.00486
Aldrin				0.00009	0.00009

TABLE 3-1 PHASE II PORTSMOUTH HARBOUR
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
Aluminum	1.00E+00	NA	*
Silver	5.00E-03	NA	D
Arsenic	3.00E-04	1.50E+00	A
Cadmium	5.00E-04	NA	B1
			*
Chromium (VI)	5.00E-03	Under revision	NA
Copper	4.00E-02	NA	D
Iron	NA	NA	*
Manganese	1.40E-01	NA	D
Nickle (soluable salts)	2.00E-02	NA	NA
Lead			B2
Zinc	3.00E-01	NA	D
Mercury (as inorganic)	3.00E-04		D
Methyl-Mercury	1.00E-04	NA	C
			*

TABLE 3-1 PHASE II PORTSMOUTH HARBOUR
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
Fluorene	4.00E-02	NA	D
Phenanthrene	***4.00E-03***	***NA***	***D***
Anthracene	3.00E-01	NA	D
C1-phenanthrene + anthracene			*
C2-phenanthrene + anthracene			*
C3-phenanthrene + anthracene			*
C4-phenanthrene + anthracene			*
			*
Fluoranthene	4.00E-02	NA	D
Pyrene	3.00E-02		D
Benzo(a)anthracene (0.1 TEF)	NA	7.30E-01	B2
Chrysene (0.001 TEF)	NA	7.30E-03	B2
Sum of benzofluoranthenes			*
Benzo(e)pyrene	NA	NA	under revision
Benzo(a)pyrene (1.0 TEF)	NA	***7.30E+00***	B2
Perylene	NA	NA	*
Indeno(1,2,3-cd)pyrene (0.1 TEF)	NA	7.30E-01	B2
Dibenz(a,h)anthracene (1.0 TEF)	NA	7.30E+00	B2
Benzo(g,h,i)perylene	4.00E-03	NA	D
Sum of measured PAHs			*

TABLE 3-1 PHASE II PORTSMOUTH HARBOUR
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
8 (2 4') Congener number; position of chlorines			*
			*
18 (2 2' 5)			*
28 (2 4 4')			*
52 (2 2' 5 5')			*
44 (2 2' 3 5')			*
66 (2 3' 4 4')			*
101 (2 2' 4 5 5')			*
118			*
153 (2 2' 4 4' 5 5')			*
105 (2 3 3' 4 4')			*
138 (2 2' 3 4 4' 5)			*
187 (2 2' 3 4' 5 5' 6)			*
128 (2 2' 3 3' 4 4')			*
180 (2 2' 3 4 4' 5 5')			*
170 (2 2' 3 3' 4 4' 5)			*
195 (2 2' 3 3' 4 4' 5 6)			*
206 (2 2' 3 3' 4 4' 5 5' 6)			*
209 (2 2' 3 3' 4 4' 5 5' 6 6')			*
Sum of PCB Congeners.		7.70E+00	B2
			*

TABLE 3-1 PHASE II PORTSMOUTH HARBOUR
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
Hexachlorobenzene	8.00E-04	***1.60E+00***	***B2***
Lindane (gamma-BHC)	3.00E-04	1.30E+00	*
Alpha-chlordane (as chlordane)	6.00E-05	1.30E+00	B2
Trans-nonachlor	NA	NA	*
Heptachlor	5.00E-04	4.50E+00	B2
Heptachlor epoxide	1.30E-05	9.10E+00	B2
Mirex	2.00E-04	***1.80E+00***	Under Revision
o,p -DDD (2,4' -DDD)	NA	NA	*
p,p -DDD (4,4'-DDD)	NA	2.40E-01	B2
o,p -DDE (2,4'-DDD)	NA	NA	*
p,p -DDE (4,4'-DDE)	NA	3.40E-01	B2
o,p -DDT (2,4'-DDT)	NA	NA	*
p,p -DDT (4.4'-DDT)	5.00E-04	3.40E-01	B2
Aldrin	3.00E-05	1.70E+01	B2

TABLE 4-1 PHASE II PORTSMOUTH HARBOR
EXPOSURE ASSESSMENT INPUT PARAMETERS
(SEAFOOD INTAKE FACTORS)

Central Tendency for Nine year exposure		Exposure Frequency	Exposure Duration	Non-carcinogen Averaging Time	Carcinogen Average Time	Receptor Body Weight
	Ingestion Rate (Kg/meal	Meals per year	Years	Days	Days	Weight in Kg
Lobster tail and claw	0.095	6	9	3285	25550	70
Lobster hepatopancreas	0.019	6	9	3285	25550	70
						70
Flounder Filet	0.0324	350	9	3285	25550	70
Flounder Liver	0.019	350	9	3285	25550	70
Mussels	0.0324	350	9	3285	25550	70

TABLE 4-1 PHASE II PORTSMOUTH HARBOR
EXPOSURE ASSESSMENT INPUT PARAMETERS
(SEAFOOD INTAKE FACTORS)

High End for 30 year exposure		Exposure Frequency	Exposure Duration	Non-carcinogen Averaging Time	Carcinogen Average Time	Receptor Body Weight
	Ingestion Rate (Kg/meal	Meals per year	Years		Days	Weight in Kg
Lobster tail and claw	0.095	52	30	10950	25550	70
Lobster hepatopancreas	0.019	52	30	10950	25550	70
Flounder Filet	0.055	350	30	10950	25550	70
Flounder Liver	0.019	350	30	10950	25550	70
Mussels	0.055	350	30	10950	25550	70

PHASE II HARBOR LOCATIONS TABLE 4-2A
SEAFOOD INTAKES LOBSTER TAIL AND CLAW FOR CANCER AND NONCANCER CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central Tendency Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Carcinogenic Central Tendency Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Intake Carcinogenic High End Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Carcinogenic High End Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	1.37E-06	1.21E-06	3.95E-05	3.49E-05
Silver	3.06E-07	2.74E-07	8.84E-06	7.92E-06
10% of total Arsenic	9.96E-07	7.55E-07	2.88E-05	2.18E-05
Cadmium	1.72E-08	1.26E-08	4.96E-07	3.63E-07
assume Chromium III	2.16E-07	1.87E-07	6.23E-06	5.40E-06
assume Chromium VI	2.16E-07	1.87E-07	6.23E-06	5.40E-06
Copper	2.08E-05	1.43E-05	6.01E-04	4.13E-04
Iron	6.35E-06	4.83E-06	1.83E-04	1.39E-04
Manganese	1.47E-06	1.05E-06	4.25E-05	3.05E-05
Nickle	1.21E-07	1.18E-07	3.50E-06	3.42E-06
Lead	4.58E-08	4.04E-08	1.32E-06	1.17E-06
Zinc	6.87E-05	6.78E-05	1.98E-03	1.96E-03
Mercury (Total)	5.26E-07	4.44E-07	1.52E-05	1.28E-05
Methyl-Mercury	1.86E-07	2.13E-07	5.37E-06	6.14E-06
Fluorene	2.67E-09	1.91E-09	7.72E-08	5.51E-08
Phenanthrene	1.33E-08	9.14E-09	3.85E-07	2.64E-07
Anthracene	1.50E-09	1.47E-09	4.33E-08	4.26E-08
C1-phenanthrene + anthracene	1.06E-08	7.48E-09	3.08E-07	2.16E-07
C2-phenanthrene + anthracene	1.03E-08	7.11E-09	2.98E-07	2.05E-07
C3-phenanthrene + anthracene	7.21E-09	5.16E-09	2.08E-07	1.49E-07
C4-phenanthrene + anthracene	7.40E-09	5.46E-09	2.14E-07	1.58E-07
Sum C1:C4-phenanthrene + anthracene	3.56E-08	2.52E-08	1.03E-06	7.28E-07
Fluoranthene	3.49E-08	2.35E-08	1.01E-06	6.80E-07
Pyrene	5.99E-08	3.88E-08	1.73E-06	1.12E-06
Benz(a)anthracene	1.04E-08	6.93E-09	3.00E-07	2.00E-07
Chrysene	1.62E-08	1.08E-08	4.68E-07	3.11E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	3.50E-08	2.30E-08	1.01E-06	6.64E-07
Benzo(e)pyrene	1.33E-08	9.00E-09	3.85E-07	2.60E-07
Benzo(a)pyrene	1.56E-08	1.02E-08	4.51E-07	2.93E-07
Perylene	4.62E-09	3.49E-09	1.34E-07	1.01E-07
Indeno(1,2,3-cd)pyrene	7.97E-09	5.28E-09	2.30E-07	1.52E-07
Dibenz(a,h)anthracene	9.57E-10	6.62E-10	2.76E-08	1.91E-08
Benzo(g,h,i)perylene	1.22E-08	8.40E-09	3.54E-07	2.43E-07
Sum of measured PAHs	2.64E-07	1.77E-07	7.63E-06	5.11E-06
8 (2 4') Congener number; position of chlorines	3.45E-10	3.35E-10	9.98E-09	9.69E-09
18 (2 2' 5)	1.11E-06	9.76E-07	3.22E-05	2.82E-05
28 (2 4 4')	4.80E-10	4.12E-10	1.39E-08	1.19E-08
52 (2 2' 5 5')	4.66E-10	3.55E-10	1.34E-08	1.03E-08
44 (2 2' 3 5')	1.26E-10	1.04E-10	3.64E-09	3.00E-09
66 (2 3' 4 4')	7.19E-10	6.70E-10	2.08E-08	1.93E-08
101 (2 2' 4 5 5')	9.32E-10	7.17E-10	2.69E-08	2.07E-08
PCB118	3.28E-09	2.70E-09	9.49E-08	7.79E-08
153 (2 2' 4 4' 5 5')	2.09E-08	1.73E-08	6.04E-07	4.99E-07
105 (2 3 3' 4 4')	1.03E-09	8.31E-10	2.98E-08	2.40E-08
138 (2 2' 3 4 4' 5)	3.55E-09	2.85E-09	1.02E-07	8.23E-08
187 (2 2' 3 4' 5 5' 6)	1.61E-09	1.31E-09	4.64E-08	3.78E-08
128 (2 2' 3 3' 4 4')	6.82E-10	5.47E-10	1.97E-08	1.58E-08
180 (2 2' 3 4 4' 5 5')	1.47E-09	1.16E-09	4.24E-08	3.35E-08
170 (2 2' 3 3' 4 4' 5)	5.28E-10	4.16E-10	1.53E-08	1.20E-08
195 (2 2' 3 3' 4 4' 5 6)	1.50E-10	1.30E-10	4.33E-09	3.76E-09
206 (2 2' 3 3' 4 4' 5 5' 6)	2.71E-10	2.15E-10	7.83E-09	6.20E-09
209 (2 2' 3 3' 4 4' 5 5' 6 6')	9.74E-11	9.46E-11	2.81E-09	2.73E-09
Sum of PCB Congeners.	1.86E-08	1.72E-08	5.37E-07	4.98E-07
Hexachlorobenzene	2.73E-10	2.45E-10	7.87E-09	7.08E-09
Lindane (gamma-BHC)	7.41E-10	7.21E-10	2.14E-08	2.08E-08
Alpha-chlordane as chlorodane	2.40E-10	2.28E-10	6.95E-09	6.59E-09
Trans-nonachlor	3.56E-10	3.32E-10	1.03E-08	9.58E-09
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	6.41E-10	5.47E-10	1.85E-08	1.58E-08
o,p -DDE				
p,p -DDE	3.07E-09	2.95E-09	8.86E-08	8.53E-08
o,p -DDT				
p,p -DDT	2.10E-10	2.09E-10	6.08E-09	6.05E-09
Aldrin				

PHASE II HARBOR LOCATIONS TABLE 4-2A
SEAFOOD INTAKES LOBSTER TAIL AND CLAW FOR CANCER AND NONCANCER CALCULATIONS

Chemical of Potential Concern	Intake Non-carcinogenic Central Tendency Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Non-carcinogenic Central Tendency Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Intake Non-carcinogenic High End Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Non-carcinogenic High End Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	1.06E-05	9.38E-06	9.19E-05	8.12E-05
Silver	2.38E-06	2.13E-06	2.06E-05	1.84E-05
10% of total Arsenic	7.74E-06	5.87E-06	6.70E-05	5.08E-05
Cadmium	1.33E-07	9.77E-08	1.15E-06	8.45E-07
assume Chromium III	1.68E-06	1.45E-06	1.45E-05	1.26E-05
assume Chromium VI	1.68E-06	1.45E-06	1.45E-05	1.26E-05
Copper	1.62E-04	1.11E-04	1.40E-03	9.61E-04
Iron	4.94E-05	3.75E-05	4.27E-04	3.25E-04
Manganese	1.14E-05	8.19E-06	9.89E-05	7.09E-05
Nickle	9.41E-07	9.21E-07	8.15E-06	7.97E-06
Lead	3.56E-07	3.14E-07	3.08E-06	2.72E-06
Zinc	5.34E-04	5.27E-04	4.62E-03	4.56E-03
Mercury (Total)	4.09E-06	3.45E-06	3.54E-05	2.99E-05
Methyl-Mercury	1.44E-06	1.65E-06	1.25E-05	1.43E-05
Fluorene	2.08E-08	1.48E-08	1.80E-07	1.28E-07
Phenanthrene	1.04E-07	7.10E-08	8.96E-07	6.14E-07
Anthracene	1.16E-08	1.14E-08	1.01E-07	9.91E-08
C1-phenanthrene + anthracene	8.27E-08	5.81E-08	7.16E-07	5.03E-07
C2-phenanthrene + anthracene	8.03E-08	5.52E-08	6.95E-07	4.78E-07
C3-phenanthrene + anthracene	5.60E-08	4.01E-08	4.85E-07	3.47E-07
C4-phenanthrene + anthracene	5.75E-08	4.24E-08	4.97E-07	3.67E-07
Sum C1:C4-phenanthrene + anthracene	2.76E-07	1.96E-07	2.39E-06	1.70E-06
Fluoranthene	2.71E-07	1.83E-07	2.35E-06	1.58E-06
Pyrene	4.66E-07	3.01E-07	4.03E-06	2.61E-06
Benz(a)anthracene	8.08E-08	5.38E-08	6.99E-07	4.66E-07
Chrysene	1.26E-07	8.37E-08	1.09E-06	7.24E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	2.72E-07	1.79E-07	2.35E-06	1.55E-06
Benzo(e)pyrene	1.04E-07	6.99E-08	8.96E-07	6.05E-07
Benzo(a)pyrene	1.21E-07	7.89E-08	1.05E-06	6.83E-07
Perylene	3.59E-08	2.71E-08	3.11E-07	2.35E-07
Indeno(1,2,3-cd)pyrene	6.19E-08	4.10E-08	5.36E-07	3.55E-07
Dibenz(a,h)anthracene	7.43E-09	5.14E-09	6.43E-08	4.45E-08
Benzo(g,h,i)perylene	9.51E-08	6.53E-08	8.23E-07	5.65E-07
Sum of measured PAHs	2.05E-06	1.38E-06	1.78E-05	1.19E-05
8 (2 4') Congener number; position of chlorines	2.68E-09	2.61E-09	2.32E-08	2.26E-08
18 (2 2' 5)	8.65E-06	7.58E-06	7.49E-05	6.56E-05
28 (2 4 4')	3.73E-09	3.20E-09	3.23E-08	2.77E-08
52 (2 2' 5 5')	3.62E-09	2.76E-09	3.13E-08	2.39E-08
44 (2 2' 3 5')	9.78E-10	8.06E-10	8.47E-09	6.97E-09
66 (2 3' 4 4')	5.58E-09	5.20E-09	4.83E-08	4.50E-08
101 (2 2' 4 5 5')	7.24E-09	5.57E-09	6.27E-08	4.82E-08
PCB118	2.55E-08	2.10E-08	2.21E-07	1.81E-07
153 (2 2' 4 4' 5 5')	1.62E-07	1.34E-07	1.41E-06	1.16E-06
105 (2 3 3' 4 4')	8.03E-09	6.46E-09	6.95E-08	5.59E-08
138 (2 2' 3 4 4' 5)	2.76E-08	2.21E-08	2.38E-07	1.92E-07
187 (2 2' 3 4' 5 5' 6)	1.25E-08	1.02E-08	1.08E-07	8.80E-08
128 (2 2' 3 3' 4 4')	5.30E-09	4.25E-09	4.59E-08	3.68E-08
180 (2 2' 3 4 4' 5 5')	1.14E-08	9.02E-09	9.86E-08	7.81E-08
170 (2 2' 3 3' 4 4' 5)	4.10E-09	3.24E-09	3.55E-08	2.80E-08
195 (2 2' 3 3' 4 4' 5 6)	1.16E-09	1.01E-09	1.01E-08	8.75E-09
206 (2 2' 3 3' 4 4' 5 5' 6)	2.11E-09	1.67E-09	1.82E-08	1.44E-08
209 (2 2' 3 3' 4 4' 5 5' 6 6')	7.57E-10	7.35E-10	6.55E-09	6.36E-09
Sum of PCB Congeners.	1.44E-07	1.34E-07	1.25E-06	1.16E-06
Hexachlorobenzene	2.12E-09	1.90E-09	1.83E-08	1.65E-08
Lindane (gamma-BHC)	5.76E-09	5.60E-09	4.98E-08	4.85E-08
Alpha-chlordane as chlorodane	1.87E-09	1.77E-09	1.62E-08	1.53E-08
Trans-nonachlor	2.76E-09	2.58E-09	2.39E-08	2.23E-08
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	4.98E-09	4.25E-09	4.31E-08	3.68E-08
o,p -DDE				
p,p -DDE	2.38E-08	2.29E-08	2.06E-07	1.99E-07
o,p -DDT				
p,p -DDT	1.64E-09	1.63E-09	1.42E-08	1.41E-08
Aldrin				

PHASE II HARBOR DATA
TABLE 4-2B
SEAFOOD INTAKES LOBSTER HEPATOPANCREAS FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central Tendency Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Carcinogenic Central Tendency Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Carcinogenic High End Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Carcinogenic High End Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	4.32E-06	2.15E-06	1.25E-04	6.21E-05
Silver	3.26E-07	2.66E-07	9.44E-06	7.69E-06
10% of total Arsenic	4.12E-07	3.51E-07	1.19E-05	1.02E-05
Cadmium	5.70E-06	3.15E-06	1.65E-04	9.11E-05
assume Chromium III	1.33E-07	9.01E-08	3.84E-06	2.60E-06
assume Chromium VI	1.33E-07	9.01E-08	3.84E-06	2.60E-06
Copper	2.96E-04	1.43E-04	8.57E-03	4.14E-03
Iron	6.23E-05	3.56E-05	1.80E-03	1.03E-03
Manganese	1.59E-06	1.39E-06	4.61E-05	4.01E-05
Nickle	1.34E-07	1.19E-07	3.89E-06	3.45E-06
Lead	1.75E-07	9.80E-08	5.06E-06	2.83E-06
Zinc	1.87E-05	1.44E-05	5.41E-04	4.18E-04
Mercury (Total)	1.47E-07	8.01E-08	4.25E-06	2.32E-06
Methyl-Mercury	3.42E-08	2.52E-08	9.89E-07	9.89E-07
Fluorene	9.32E-09	6.22E-09	2.70E-07	1.80E-07
Phenanthrene	1.01E-07	4.96E-08	2.93E-06	1.43E-06
Anthracene	5.12E-08	2.22E-08	1.48E-06	6.43E-07
C1-phenanthrene + anthracene	1.16E-07	5.95E-08	3.35E-06	1.72E-06
C2-phenanthrene + anthracene	9.29E-08	5.37E-08	2.69E-06	1.55E-06
C3-phenanthrene + anthracene	6.30E-08	3.66E-08	1.82E-06	1.06E-06
C4-phenanthrene + anthracene	2.03E-08	1.66E-08	5.86E-07	4.79E-07
Sum C1:C4-phenanthrene + anthracene	2.92E-07	1.66E-07	8.44E-06	4.81E-06
Fluoranthene	2.55E-07	1.27E-07	7.37E-06	3.69E-06
Pyrene	1.60E-07	7.96E-08	4.63E-06	2.30E-06
Benz(a)anthracene	5.63E-08	2.56E-08	1.63E-06	7.40E-07
Chrysene	8.78E-08	4.39E-08	2.54E-06	1.27E-06
Sum of benzofluoranthenes as benzo(b) fluoranthene	1.25E-07	6.64E-08	3.62E-06	1.92E-06
Benzo(e)pyrene	5.76E-08	2.93E-08	1.67E-06	8.48E-07
Benzo(a)pyrene	1.06E-07	6.47E-08	3.07E-06	1.87E-06
Perylene	3.76E-08	3.07E-08	1.09E-06	8.89E-07
Indeno(1,2,3-cd)pyrene	2.37E-08	1.17E-08	6.86E-07	3.39E-07
Dibenz(a,h)anthracene	4.61E-09	2.53E-09	1.33E-07	7.31E-08
Benzo(g,h,i)perylene	3.47E-08	1.77E-08	1.00E-06	5.12E-07
Sum of measured PAHs	1.35E-06	6.91E-07	3.92E-05	2.00E-05
Sum of PCB Congeners.	3.62E-07	3.30E-07	1.05E-05	9.54E-06
Hexachlorobenzene	3.60E-09	3.32E-09	1.04E-07	9.59E-08
Lindane (gamma-BHC)	1.33E-09	1.20E-09	3.83E-08	3.47E-08
Alpha-chlordane as chlorodane	5.94E-09	5.07E-09	1.72E-07	1.47E-07
Trans-nonachlor	1.59E-08	1.24E-08	4.59E-07	3.59E-07
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	3.78E-08	2.68E-08	1.09E-06	7.76E-07
o,p -DDE				
p,p -DDE	2.08E-07	1.89E-07	6.03E-06	5.46E-06
o,p -DDT				
p,p -DDT	1.81E-08	1.46E-08	5.24E-07	4.23E-07
Aldrin				

PHASE II HARBOR DATA
TABLE 4-2B
SEAFOOD INTAKES LOBSTER HEPATOPANCREAS FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Non-carcinogenic Central Tendency Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Non-carcinogenic Central Tendency Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Non-carcinogenic High End Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Non-carcinogenic High End Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	3.35E-05	1.67E-05	2.91E-04	1.45E-04
Silver	2.54E-06	2.07E-06	2.20E-05	1.79E-05
10% of total Arsenic	3.20E-06	2.73E-06	2.78E-05	2.37E-05
Cadmium	4.43E-05	2.45E-05	3.84E-04	2.12E-04
assume Chromium III	1.03E-06	7.00E-07	8.96E-06	6.07E-06
assume Chromium VI	1.03E-06	7.00E-07	8.96E-06	6.07E-06
Copper	2.30E-03	1.11E-03	2.00E-02	9.65E-03
Iron	4.84E-04	2.76E-04	4.20E-03	2.40E-03
Manganese	1.24E-05	1.08E-05	1.07E-04	9.34E-05
Nickle	1.04E-06	9.27E-07	9.06E-06	8.05E-06
Lead	1.36E-06	7.62E-07	1.18E-05	6.61E-06
Zinc	1.45E-04	1.12E-04	1.26E-03	9.74E-04
Mercury (Total)	1.14E-06	6.23E-07	9.90E-06	5.40E-06
Methyl-Mercury	2.66E-07	1.96E-07	2.31E-06	2.31E-06
Fluorene	7.24E-08	4.84E-08	6.29E-07	4.20E-07
Phenanthrene	7.86E-07	3.85E-07	6.82E-06	3.34E-06
Anthracene	3.98E-07	1.73E-07	3.45E-06	1.50E-06
C1-phenanthrene + anthracene	9.00E-07	4.63E-07	7.81E-06	4.01E-06
C2-phenanthrene + anthracene	7.22E-07	4.17E-07	6.26E-06	3.62E-06
C3-phenanthrene + anthracene	4.89E-07	2.85E-07	4.25E-06	2.47E-06
C4-phenanthrene + anthracene	1.57E-07	1.29E-07	1.37E-06	1.12E-06
Sum C1:C4-phenanthrene + anthracene	2.27E-06	1.29E-06	1.97E-05	1.12E-05
Fluoranthene	1.98E-06	9.90E-07	1.72E-05	8.59E-06
Pyrene	1.24E-06	6.19E-07	1.08E-05	5.37E-06
Benz(a)anthracene	4.38E-07	1.99E-07	3.80E-06	1.73E-06
Chrysene	6.82E-07	3.41E-07	5.92E-06	2.96E-06
Sum of benzofluoranthenes as benzo(b) fluoranthene	9.72E-07	5.16E-07	8.43E-06	4.48E-06
Benzo(e)pyrene	4.47E-07	2.28E-07	3.88E-06	1.98E-06
Benzo(a)pyrene	8.24E-07	5.03E-07	7.15E-06	4.37E-06
Perylene	2.92E-07	2.39E-07	2.54E-06	2.07E-06
Indeno(1,2,3-cd)pyrene	1.84E-07	9.10E-08	1.60E-06	7.89E-07
Dibenz(a,h)anthracene	3.58E-08	1.96E-08	3.11E-07	1.70E-07
Benzo(g,h,i)perylene	2.69E-07	1.37E-07	2.34E-06	1.19E-06
Sum of measured PAHs	1.05E-05	5.37E-06	9.13E-05	4.66E-05
Sum of PCB Congeners.	2.81E-06	2.56E-06	2.44E-05	2.22E-05
Hexachlorobenzene	2.79E-08	2.58E-08	2.42E-07	2.24E-07
Lindane (gamma-BHC)	1.03E-08	9.33E-09	8.93E-08	8.10E-08
Alpha-chlordane as chlorodane	4.62E-08	3.94E-08	4.01E-07	3.42E-07
Trans-nonachlor	1.23E-07	9.63E-08	1.07E-06	8.36E-07
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	2.94E-07	2.09E-07	2.55E-06	1.81E-06
o,p -DDE				
p,p -DDE	1.62E-06	1.47E-06	1.41E-05	1.27E-05
o,p -DDT				
p,p -DDT	1.41E-07	1.14E-07	1.22E-06	9.86E-07
Aldrin				

PH E II HARBOR LOCATIONS TABLE 4
SEAFOOD INTAKES MUSSELS FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central Tendency using Maximum Concentration Mytilus edulis mussel indigenous	Intake Carcinogenic Central Tendency using 95% UCL Mytilusius edulis mussel indigenous	Intake Carcinogenic High End using Maximum Concentration Mytilus edulis mussel indigenous	Intake Carcinogenic High End using 95% UCL Mytiluslus edulis mussel indigenous
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	9.37E-03	5.05E-03	5.30E-02	2.86E-02
Silver	7.20E-06	3.21E-06	4.07E-05	1.81E-05
10% of total Arsenic	1.20E-05	9.46E-06	6.76E-05	5.35E-05
Cadmium	3.44E-05	2.13E-05	1.95E-04	1.21E-04
assume Chromium III	9.11E-04	3.51E-04	5.15E-03	1.98E-03
assume Chromium IV	0.001	0.000	0.005	0.002
Copper	3.15E-04	1.53E-04	1.78E-03	8.67E-04
Iron	1.97E-02	1.20E-02	1.11E-01	6.81E-02
Manganese	9.40E-03	2.34E-03	5.32E-02	1.32E-02
Nickle	1.07E-03	3.93E-04	6.06E-03	2.22E-03
Lead	1.56E-03	4.31E-04	8.85E-03	2.44E-03
Zinc	1.97E-03	1.10E-03	1.12E-02	6.24E-03
Mercury (Total)	4.30E-05	5.97E-06	2.43E-04	3.38E-05
Methyl-Mercury (no value)				
Fluorene	3.36E-06	4.68E-07	1.90E-05	2.65E-06
Phenanthrene	2.68E-05	1.56E-06	1.51E-04	1.51E-04
Anthracene	2.85E-06	4.71E-07	1.61E-05	2.67E-06
C1-phenanthrene + anthracene	1.35E-05	1.73E-06	7.66E-05	9.81E-06
C2-phenanthrene + anthracene	8.06E-06	1.54E-06	4.56E-05	8.73E-06
C3-phenanthrene + anthracene	3.52E-06	8.43E-07	1.99E-05	4.77E-06
C4-phenanthrene + anthracene	7.30E-06	1.28E-06	4.13E-05	7.23E-06
Sum C1:C4-phenanthrene + anthracene	3.24E-05	5.40E-06	1.83E-04	3.05E-05
Fluoranthene	4.15E-05	4.61E-06	2.35E-04	2.61E-05
Pyrene (95UCL>max)	2.78E-05	2.78E-05	1.58E-04	1.58E-04
Benz(a)anthracene	1.35E-05	1.56E-06	7.66E-05	8.81E-06
Chrysene	1.04E-05	1.36E-06	5.89E-05	7.72E-06
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene	4.65E-06	7.69E-07	2.63E-05	4.35E-06
Benzo(a)pyrene	4.01E-06	5.44E-07	2.27E-05	3.06E-06
Perylene	1.38E-06	2.32E-07	7.80E-06	1.31E-06
Indeno(1,2,3-cd)pyrene	1.38E-06	3.67E-07	7.80E-06	2.08E-06
Dibenz(a,h)anthracene	4.72E-07	1.93E-07	2.67E-06	1.09E-06
Benzo(g,h,i)perylene	1.23E-06	3.20E-07	6.97E-06	1.81E-06
Sum of measured PAHs	1.69E-04	2.22E-05	9.56E-04	1.25E-04
8 (2 4') Congener number; position of chlorines	2.36E-08	2.30E-08	1.33E-07	1.30E-07
18 (2 2' 5)	2.47E-08	2.41E-08	1.39E-07	1.36E-07
28 (2 4 4')	1.17E-08	1.15E-08	6.64E-08	6.48E-08
52 (2 2' 5 5')	4.26E-08	2.10E-08	2.41E-07	1.19E-07
44 (2 2' 3 5')	1.85E-08	9.69E-09	1.04E-07	5.48E-08
66 (2 3' 4 4')	3.81E-08	7.68E-09	2.15E-07	4.34E-08
101 (2 2' 4 5 5')	7.72E-08	7.72E-08	4.37E-07	4.37E-07
PCB118	1.94E-07	6.18E-08	1.10E-06	3.49E-07
153 (2 2' 4 4' 5 5')	2.31E-06	9.82E-07	1.31E-05	5.56E-06
105 (2 3 3' 4 4')	6.92E-08	1.87E-08	3.91E-07	1.06E-07
138 (2 2' 3 4 4' 5)	3.67E-07	1.04E-07	2.08E-06	5.86E-07
187 (2 2' 3 4' 5 5' 6)	9.99E-08	3.86E-08	5.65E-07	2.18E-07
128 (2 2' 3 3' 4 4')	8.76E-08	2.29E-08	4.96E-07	1.30E-07
180 (2 2' 3 4 4' 5 5')	3.40E-08	1.36E-08	1.92E-07	7.71E-08
170 (2 2' 3 3' 4 4' 5)	9.57E-09	9.34E-09	5.41E-08	5.28E-08
195 (2 2' 3 3' 4 4' 5 6)	6.20E-09	5.62E-09	3.51E-08	3.18E-08
206 (2 2' 3 3' 4 4' 5 5' 6)	6.49E-09	6.33E-09	3.67E-08	3.58E-08
209 (2 2' 3 3' 4 4' 5 5' 6 6')	5.46E-09	5.31E-09	3.09E-08	3.00E-08
Sum of Congeners.	1.67E-06	5.78E-07	9.44E-06	3.27E-06
Hexachlorobenzene	7.80E-08	4.22E-08	4.41E-07	2.39E-07
Lindane (gamma-BHC)	6.94E-09	6.76E-09	3.93E-08	3.83E-08
Alpha-chlordane as chlorodane	3.65E-08	1.48E-08	2.07E-07	8.39E-08
Trans-nonachlor	2.41E-08	6.08E-09	1.37E-07	3.44E-08
Heptachlor				
Heptachlor epoxide	1.45E-08	1.37E-08	8.19E-08	7.76E-08
Mirex	3.50E-09	3.39E-09	1.98E-08	1.92E-08
o,p -DDD	9.98E-08	1.95E-08	5.64E-07	1.10E-07
p,p -DDD	1.60E-07	5.92E-08	9.05E-07	3.35E-07
o,p -DDE	1.80E-08	4.59E-09	1.02E-07	2.60E-08
p,p -DDE	1.53E-07	8.83E-08	8.67E-07	4.99E-07
o,p -DDT	4.98E-08	1.78E-08	2.81E-07	1.01E-07
p,p -DDT	2.76E-07	1.37E-07	1.57E-06	7.75E-07
Aldrin	5.26E-09	5.11E-09	2.97E-08	2.89E-08

PH SE II HARBOR LOCATIONS TABLE 4 ^C
SEAFOOD INTAKES M..SSELS FOR CANCER AND NON-CA..ER CALCULATIONS

Chemical of Potential Concern	Intake Non-Carcinogenic Central Tendency using Maximum concentration Mytilus edulis mussel indigenous	Intake Non-carcinogenic Central Tendency using 95% UCL Mytilusius edulis mussel indigenous	Intake Non-carcinogenic High End using Maximum concentration Mytilus edulis mussel indigenous	Intake Non-Carcinogenic High End using 95% UCL Mytilusius edulis mussel indigenous
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	7.29E-02	3.93E-02	1.24E-01	6.66E-02
Silver	5.60E-05	2.49E-05	9.50E-05	4.23E-05
10% of total Arsenic	9.30E-05	7.35E-05	1.58E-04	1.25E-04
Cadmium	2.68E-04	1.66E-04	4.54E-04	2.81E-04
assume Chromium III	7.08E-03	2.73E-03	1.20E-02	4.62E-03
assume Chromium IV	0.007	0.003	0.012	0.005
Copper	2.45E-03	1.19E-03	4.16E-03	2.02E-03
Iron	1.53E-01	9.36E-02	2.60E-01	1.59E-01
Manganese	7.31E-02	1.82E-02	1.24E-01	3.09E-02
Nickle	8.33E-03	3.05E-03	1.41E-02	5.18E-03
Lead	1.22E-02	3.35E-03	2.06E-02	5.68E-03
Zinc	1.53E-02	8.58E-03	2.60E-02	1.46E-02
Mercury (Total)	3.35E-04	3.54E-05	5.67E-04	7.87E-05
Methyl-Mercury (no value)				
Fluorene	2.62E-05	3.64E-06	4.44E-05	6.17E-06
Phenanthrene	2.06E-04	2.21E-05	3.63E-04	3.75E-05
Anthracene	2.22E-05	3.66E-06	3.76E-05	6.21E-06
C1-phenanthrene + anthracene	1.05E-04	1.35E-05	1.78E-04	2.29E-05
C2-phenanthrene + anthracene	6.27E-05	1.20E-05	1.06E-04	2.03E-05
C3-phenanthrene + anthracene	2.74E-05	6.56E-06	4.64E-05	1.11E-05
C4-phenanthrene + anthracene	5.68E-05	9.94E-06	9.63E-05	1.69E-05
Sum C1:C4-phenanthrene + anthracene	2.52E-04	4.20E-05	4.27E-04	7.12E-05
Fluoranthene	3.22E-04	3.58E-05	5.47E-04	6.08E-05
Pyrene (95UCL>max)	2.17E-04	1.39E-05	3.67E-04	3.67E-04
Benz(a)anthracene	1.05E-04	1.21E-05	1.78E-04	2.05E-05
Chrysene	8.09E-05	1.06E-05	1.37E-04	1.80E-05
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene	3.61E-05	5.98E-06	6.13E-05	1.01E-05
Benzo(a)pyrene	3.12E-05	4.23E-06	5.29E-05	7.18E-06
Perylene	1.07E-05	1.80E-06	1.82E-05	3.06E-06
Indeno(1,2,3-cd)pyrene	1.07E-05	2.86E-06	1.82E-05	4.85E-06
Dibenz(a,h)anthracene	3.67E-06	1.50E-06	6.23E-06	2.54E-06
Benzo(g,h,i)perylene	9.57E-06	2.49E-06	1.62E-05	4.22E-06
Sum of measured PAHs	1.31E-03	1.72E-04	2.23E-03	2.92E-04
8 (2 4') Congener number, position of chlorines	1.83E-07	1.79E-07	3.11E-07	3.04E-07
18 (2 2' 5)	1.92E-07	1.87E-07	3.25E-07	3.17E-07
28 (2 4 4')	9.12E-08	8.91E-08	1.55E-07	1.51E-07
52 (2 2' 5 5')	3.32E-07	1.64E-07	5.62E-07	2.78E-07
44 (2 2' 3 5')	1.44E-07	7.54E-08	2.43E-07	1.28E-07
66 (2 3' 4 4')	2.96E-07	5.97E-08	5.02E-07	1.01E-07
101 (2 2' 4 5 5')	6.01E-07	6.01E-07	1.02E-06	1.02E-06
PCB118	1.51E-06	4.80E-07	2.56E-06	8.15E-07
153 (2 2' 4 4' 5 5')	1.80E-05	7.64E-06	3.05E-05	1.30E-05
105 (2 3 3' 4 4')	5.38E-07	1.45E-07	9.12E-07	2.46E-07
138 (2 2' 3 4 4' 5)	2.85E-06	8.05E-07	4.84E-06	1.37E-06
187 (2 2' 3 4' 5 5' 6)	7.77E-07	3.00E-07	1.32E-06	5.08E-07
128 (2 2' 3 3' 4 4')	6.81E-07	1.78E-07	1.16E-06	3.03E-07
180 (2 2' 3 4 4' 5 5')	2.64E-07	1.06E-07	4.48E-07	1.80E-07
170 (2 2' 3 3' 4 4' 5)	7.44E-08	7.26E-08	1.26E-07	1.23E-07
195 (2 2' 3 3' 4 4' 5 6)	4.82E-08	4.37E-08	8.18E-08	7.41E-08
206 (2 2' 3 3' 4 4' 5 5' 6)	5.05E-08	4.92E-08	8.56E-08	8.34E-08
209 (2 2' 3 3' 4 4' 5 5' 6 6')	4.24E-08	4.13E-08	7.20E-08	7.00E-08
Sum of Congeners.	1.30E-05	4.49E-06	2.20E-05	7.62E-06
Hexachlorobenzene	6.07E-07	3.28E-07	1.03E-06	5.56E-07
Lindane (gamma-BHC)	5.40E-08	5.26E-08	9.15E-08	8.92E-08
Alpha-chlordane as chlorodane	2.84E-07	1.15E-07	4.82E-07	1.96E-07
Trans-nonachlor	1.88E-07	4.73E-08	3.18E-07	8.02E-08
Heptachlor				
Heptachlor epoxide	1.13E-07	1.07E-07	1.91E-07	1.81E-07
Mirex	2.72E-08	2.64E-08	4.62E-08	4.47E-08
o,p -DDD	7.76E-07	1.51E-07	1.32E-06	2.57E-07
p,p -DDD	1.24E-06	4.60E-07	2.11E-06	7.81E-07
o,p -DDE	1.40E-07	3.57E-08	2.37E-07	6.05E-08
p,p -DDE	1.19E-06	6.86E-07	2.02E-06	1.16E-06
o,p -DDT	3.87E-07	1.36E-07	6.56E-07	2.35E-07
p,p -DDT	2.16E-06	1.07E-06	3.66E-06	1.81E-06
Aldrin	4.09E-08	3.97E-08	6.93E-08	6.73E-08

PH E II HARBOR LOCATIONS TABLE D
SEAFOOD INTAKES FLOUNDER FILET FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Carcinogenic Central Tendency using 95% UCL concentration Pseudo-pleuronectes americanus filet flounder flesh	Intake Carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	4.54E-05	3.58E-05	2.57E-04	2.03E-04
Silver	1.87E-06	2.16E-06	1.06E-05	1.22E-05
10% of total Arsenic	1.12E-05	9.47E-06	6.35E-05	5.35E-05
Cadmium	2.28E-07	2.14E-07	1.29E-06	1.21E-06
assume Chromium III	3.99E-06	3.45E-06	2.26E-05	1.95E-05
assume Chromium VI	3.99E-06	3.45E-06	2.26E-05	1.95E-05
Copper	5.93E-06	4.68E-06	3.36E-05	2.65E-05
Iron	8.83E-05	7.06E-05	4.99E-04	3.99E-04
Manganese	1.32E-06	1.29E-06	7.45E-06	7.30E-06
Nickle	1.08E-05	1.08E-05	6.12E-05	6.12E-05
Lead	1.36E-06	1.16E-06	7.69E-06	6.58E-06
Zinc	2.15E-04	2.09E-04	1.22E-03	1.18E-03
Mercury (Total)	3.46E-06	3.22E-06	1.96E-05	1.82E-05
Methyl-Mercury	4.05E-06	2.92E-06	2.29E-05	2.29E-05
Fluorene	1.18E-08	1.13E-08	6.68E-08	6.37E-08
Phenanthrene	3.36E-08	3.17E-08	1.90E-07	1.79E-07
Anthracene	3.15E-08	2.15E-08	1.78E-07	1.22E-07
C1-phenanthrene + anthracene	3.94E-08	3.77E-08	2.23E-07	2.13E-07
C2-phenanthrene + anthracene	2.44E-08	2.31E-08	1.38E-07	1.31E-07
C3-phenanthrene + anthracene	2.55E-08	2.55E-08	1.44E-07	1.44E-07
C4-phenanthrene + anthracene	5.98E-08	5.09E-08	3.38E-07	2.88E-07
Sum C1:C4-phenanthrene + anthracene	1.49E-07	1.37E-07	8.44E-07	7.76E-07
Fluoranthene	1.57E-08	1.48E-08	8.88E-08	8.36E-08
Pyrene	3.40E-08	3.03E-08	1.92E-07	1.72E-07
Benz(a)anthracene	3.34E-08	2.71E-08	1.89E-07	1.89E-07
Chrysene	3.37E-08	3.36E-08	1.90E-07	1.90E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	1.23E-08	1.16E-08	6.98E-08	6.59E-08
Benzo(e)pyrene	1.09E-08	1.01E-08	6.19E-08	5.72E-08
Benzo(a)pyrene	7.64E-09	7.21E-09	4.32E-08	4.08E-08
Perylene	6.12E-08	6.74E-08	3.46E-07	3.81E-07
Indeno(1,2,3-cd)pyrene	2.26E-09	2.13E-09	1.28E-08	1.20E-08
Dibenz(a,h)anthracene	7.73E-08	5.89E-08	4.37E-07	4.37E-07
Benzo(g,h,i)perylene	7.42E-08	5.66E-08	4.20E-07	4.20E-07
Sum of measured PAHs	2.53E-07	2.35E-07	1.43E-06	1.33E-06
Sum of PCB Congeners.	1.07E-06	8.94E-07	6.04E-06	5.06E-06
Hexachlorobenzene	3.96E-09	3.79E-09	2.24E-08	2.14E-08
Lindane (gamma-BHC)	4.55E-09	3.77E-09	2.57E-08	2.13E-08
Alpha-chlordane as chlorodane	2.61E-08	1.95E-08	1.48E-07	1.10E-07
Trans-nonachlor	6.16E-08	4.92E-08	3.49E-07	2.78E-07
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	4.32E-08	3.90E-08	2.44E-07	2.21E-07
o,p -DDE				
p,p -DDE	6.61E-08	6.36E-08	3.74E-07	3.60E-07
o,p -DDT				
p,p -DDT	7.32E-09	6.88E-09	4.14E-08	3.89E-08
Aldrin				

PH. .E II HARBOR LOCATIONS TABLE 4 .D
SEAFOOD INTAKES FLOUNDER FILET FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Non-carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Non-carcinogenic Central Tendency using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh	Intake Non-carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Non-carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	3.53E-04	2.79E-04	5.98E-04	4.73E-04
Silver	1.45E-05	1.68E-05	2.47E-05	2.47E-05
10% of total Arsenic	8.73E-05	7.36E-05	1.48E-04	1.25E-04
Cadmium	1.78E-06	1.66E-06	3.01E-06	2.82E-06
assume Chromium III	3.10E-05	2.68E-05	5.26E-05	4.55E-05
assume Chromium VI	3.10E-05	2.68E-05	5.26E-05	4.55E-05
Copper	4.61E-05	3.64E-05	7.83E-05	6.17E-05
Iron	6.86E-04	5.49E-04	1.16E-03	9.31E-04
Manganese	1.02E-05	1.00E-05	1.74E-05	1.70E-05
Nickle	8.41E-05	8.41E-05	1.43E-04	1.43E-04
Lead	1.06E-05	9.05E-06	1.79E-05	1.53E-05
Zinc	1.67E-03	1.62E-03	2.84E-03	2.75E-03
Mercury (Total)	2.69E-05	2.51E-05	4.57E-05	4.25E-05
Methyl-Mercury	3.15E-05	2.27E-05	5.35E-05	5.35E-05
Fluorene	9.19E-08	8.76E-08	1.56E-07	1.49E-07
Phenanthrene	2.61E-07	2.47E-07	4.43E-07	4.18E-07
Anthracene	2.45E-07	1.67E-07	4.16E-07	2.84E-07
C1-phenanthrene + anthracene	3.06E-07	2.93E-07	5.20E-07	4.97E-07
C2-phenanthrene + anthracene	1.90E-07	1.80E-07	3.22E-07	3.04E-07
C3-phenanthrene + anthracene	1.98E-07	1.98E-07	3.36E-07	3.36E-07
C4-phenanthrene + anthracene	4.65E-07	3.96E-07	7.89E-07	6.72E-07
Sum C1:C4-phenanthrene + anthracene	1.16E-06	1.07E-06	1.97E-06	1.81E-06
Fluoranthene	1.22E-07	1.15E-07	2.07E-07	1.95E-07
Pyrene	2.65E-07	2.36E-07	4.49E-07	4.00E-07
Benz(a)anthracene	2.60E-07	2.11E-07	4.40E-07	4.40E-07
Chrysene	2.62E-07	2.61E-07	4.44E-07	4.43E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	9.59E-08	9.06E-08	1.63E-07	1.54E-07
Benzo(e)pyrene	8.51E-08	7.86E-08	1.44E-07	1.33E-07
Benzo(a)pyrene	5.94E-08	5.61E-08	1.01E-07	9.51E-08
Perylene	4.76E-07	5.24E-07	8.07E-07	8.88E-07
Indeno(1,2,3-cd)pyrene	1.76E-08	1.66E-08	2.98E-08	2.81E-08
Dibenz(a,h)anthracene	6.01E-07	4.58E-07	1.02E-06	1.02E-06
Benzo(g,h,i)perylene	5.77E-07	4.40E-07	9.78E-07	9.78E-07
Sum of measured PAHs	1.97E-06	1.83E-06	3.34E-06	3.10E-06
Sum of PCB Congeners.	8.30E-06	6.95E-06	1.41E-05	1.18E-05
Hexachlorobenzene	3.08E-08	2.94E-08	5.22E-08	4.99E-08
Lindane (gamma-BHC)	3.54E-08	2.93E-08	6.00E-08	4.97E-08
Alpha-chlordane as chlorodane	2.03E-07	1.52E-07	3.44E-07	2.57E-07
Trans-nonachlor	4.79E-07	3.82E-07	8.13E-07	6.48E-07
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	3.36E-07	3.03E-07	5.69E-07	5.14E-07
o,p -DDE				
p,p -DDE	5.14E-07	4.95E-07	8.71E-07	8.39E-07
o,p -DDT				
p,p -DDT	5.69E-08	5.35E-08	9.65E-08	9.07E-08
Aldrin				

PH[illegible]E II HARBOR LOCATIONS TABLE 4 [illegible]
SEAFOOD INTAKES FLOU[illegible]DER LIVER FOR CANCER AND NON-[illegible]ANCER CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Intake Carcinogenic Central Tendency using 95% UCL concentration Pseudo-pleuronectes americanus Liver flounder Liver	Intake Carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus Liver flounder Liver	Intake Carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	8.09455E-05	6.43079E-05	0.000270624	0.000214999
Silver	7.61026E-06	7.30038E-06	2.54433E-05	2.44072E-05
10% of total Arsenic	6.23185E-06	5.15197E-06	2.08349E-05	1.72245E-05
Cadmium	2.42406E-06	2.13163E-06	8.10432E-06	7.12663E-06
assume Chromium III	3.46192E-06	3.25075E-06	1.15742E-05	1.08682E-05
assume Chromium VI	3.46192E-06	3.25075E-06	1.15742E-05	1.08682E-05
Copper	0.000250778	0.000228251	0.000838423	0.000763108
Iron	0.004504712	0.003997687	0.015060528	0.013365401
Manganese	1.54383E-05	1.48149E-05	5.16146E-05	4.95305E-05
Nickle	6.45719E-06	6.36629E-06	2.15882E-05	2.12843E-05
Lead	3.63609E-06	3.64658E-06	1.21565E-05	1.21915E-05
Zinc	0.001073508	0.001056575	0.003589042	0.003532428
Mercury (Total)	2.41396E-06	1.98375E-06	8.07055E-06	6.63223E-06
Methyl-Mercury	**6.51059E-07**	**6.51059E-07**	**2.17668E-06**	**2.17668E-06**
Fluorene	4.12851E-08	4.13288E-08	1.38028E-07	1.38173E-07
Phenanthrene	1.02013E-07	9.69165E-08	3.41057E-07	3.24019E-07
Anthracene	2.95526E-08	2.90536E-08	9.88028E-08	9.71346E-08
C1-phenanthrene + anthracene	8.36771E-08	7.12205E-08	2.79756E-07	2.3811E-07
C2-phenanthrene + anthracene	1.35034E-07	1.09388E-07	4.51459E-07	3.65714E-07
C3-phenanthrene + anthracene	2.19154E-07	1.56562E-07	7.32695E-07	5.2343E-07
C4-phenanthrene + anthracene	1.66026E-07	1.24289E-07	5.55072E-07	4.15533E-07
Sum C1:C4-phenanthrene + anthracene	6.03892E-07	4.61459E-07	2.01898E-06	1.54279E-06
Fluoranthene	7.48429E-08	6.07905E-08	2.50221E-07	2.0324E-07
Pyrene	5.09053E-08	4.99605E-08	1.70191E-07	1.67032E-07
Benz(a)anthracene	3.2553E-08	3.23262E-08	1.08834E-07	1.08076E-07
Chrysene	4.03E-08	3.84453E-08	1.34734E-07	1.28534E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	3.80753E-08	3.56832E-08	1.27297E-07	1.19299E-07
Benzo(e)pyrene	4.4827E-08	3.88736E-08	1.49869E-07	1.29297E-07
Benzo(a)pyrene	3.24304E-07	2.11135E-07	1.08424E-06	7.05684E-07
Perylene	5.47886E-08	3.55144E-08	1.83174E-07	1.18735E-07
Indeno(1,2,3-cd)pyrene	5.42549E-08	4.97365E-08	1.8139E-07	1.66283E-07
Dibenz(a,h)anthracene	6.26216E-08	5.72692E-08	2.09362E-07	1.91467E-07
Benzo(g,h,i)perylene	7.17371E-08	7.39367E-08	2.39837E-07	2.47191E-07
Sum of measured PAHs	1.24131E-06	9.84488E-07	4.15005E-06	3.29142E-06
Sum of PCB Congeners.	1.25468E-05	1.16355E-05	4.19476E-05	3.89008E-05
Hexachlorobenzene	4.1716E-08	3.79198E-08	1.39468E-07	1.26777E-07
Lindane (gamma-BHC)	6.1116E-08	4.73232E-08	2.04328E-07	1.58215E-07
Alpha-chlordane as chlorodane	3.20909E-07	2.6718E-07	1.07289E-06	8.93258E-07
Trans-nonachlor	9.25742E-07	7.94014E-07	3.09502E-06	2.65481E-06
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	5.71631E-07	5.60012E-07	1.91112E-06	1.87228E-06
o,p -DDE				
p,p -DDE	1.60594E-06	1.43174E-06	5.36911E-06	4.78673E-06
o,p -DDT				
p,p -DDT	1.12144E-07	9.62025E-08	3.74929E-07	3.74929E-07
Aldrin				

P. SE II HARBOR LOCATIONS TABLE . E
SEAFOOD INTAKES FLOUNDER LIVER FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Non-carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Intake Non-carcinogenic Central Tendency using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver	Intake Non-carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Intake Non-carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	0.000628234	0.000499108	0.000628234	0.000499108
Silver	5.90647E-05	5.66597E-05	5.90647E-05	5.66597E-05
10% of total Arsenic	4.83666E-05	3.99854E-05	4.83666E-05	3.99854E-05
Cadmium	1.88136E-05	1.6544E-05	1.88136E-05	1.6544E-05
assume Chromium III	2.68687E-05	2.52297E-05	2.68687E-05	2.52297E-05
assume Chromium VI	2.68687E-05	2.52297E-05	2.68687E-05	2.52297E-05
Copper	0.001946339	0.001771501	0.001946339	0.001771501
Iron	0.03496194	0.031026825	0.03496194	0.031026825
Manganese	0.00011982	0.000114981	0.00011982	0.000114981
Nickle	5.01155E-05	4.941E-05	5.01155E-05	4.941E-05
Lead	2.82204E-05	2.83016E-05	2.82204E-05	2.83016E-05
Zinc	0.008331705	0.00820028	0.008331705	0.00820028
Mercury (Total)	1.87352E-05	1.53963E-05	1.87352E-05	1.53963E-05
Methyl-Mercury	5.053E-06	5.053E-06	5.053E-06	5.053E-06
Fluorene	3.20422E-07	3.20759E-07	3.20422E-07	3.20759E-07
Phenanthrene	7.91739E-07	7.52188E-07	7.91739E-07	7.52188E-07
Anthracene	2.29364E-07	2.25491E-07	2.29364E-07	2.25491E-07
C1-phenanthrene + anthracene	6.49434E-07	5.52756E-07	6.49434E-07	5.52756E-07
C2-phenanthrene + anthracene	1.04803E-06	8.48978E-07	1.04803E-06	8.48978E-07
C3-phenanthrene + anthracene	1.7009E-06	1.2151E-06	1.7009E-06	1.2151E-06
C4-phenanthrene + anthracene	1.28856E-06	9.64631E-07	1.28856E-06	9.64831E-07
Sum C1:C4-phenanthrene + anthracene	4.68692E-06	3.58147E-06	4.68692E-06	3.58147E-06
Fluoranthene	5.8087E-07	4.71807E-07	5.8087E-07	4.71807E-07
Pyrene	3.95086E-07	3.87753E-07	3.95086E-07	3.87753E-07
Benz(a)anthracene	2.5265E-07	2.5089E-07	2.5265E-07	2.5089E-07
Chrysene	3.12776E-07	2.98381E-07	3.12776E-07	2.98381E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	2.9551E-07	2.76944E-07	2.9551E-07	2.76944E-07
Benzo(e)pyrene	3.47911E-07	3.00153E-07	3.47911E-07	3.00153E-07
Benzo(a)pyrene	2.51699E-06	1.63866E-06	2.51699E-06	1.63866E-06
Perylene	4.25225E-07	2.75634E-07	4.25225E-07	2.75634E-07
Indeno(1,2,3-cd)pyrene	4.21083E-07	3.86015E-07	4.21083E-07	3.86015E-07
Dibenz(a,h)anthracene	4.86018E-07	4.44477E-07	4.86018E-07	4.44477E-07
Benzo(g,h,i)perylene	5.56765E-07	5.73837E-07	5.56765E-07	5.73837E-07
Sum of measured PAHs	9.63405E-06	7.6408E-06	9.63405E-06	7.6408E-06
Sum of PCB Congeners.	9.73784E-05	9.03053E-05	9.73784E-05	9.03053E-05
Hexachlorobenzene	3.23766E-07	2.94303E-07	3.23766E-07	2.94303E-07
Lindane (gamma-BHC)	4.74334E-07	3.67285E-07	4.74334E-07	3.67285E-07
Alpha-chlordane as chlorodane	2.49064E-06	2.07363E-06	2.49064E-06	2.07363E-06
Trans-nonachlor	7.18488E-06	6.1625E-06	7.18488E-06	6.1625E-06
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	4.43654E-06	4.34636E-06	4.43654E-06	4.34636E-06
o,p -DDE				
p,p -DDE	1.2464E-05	1.1112E-05	1.2464E-05	1.1112E-05
o,p -DDT				
p,p -DDT	8.70372E-07	7.46646E-07	8.70372E-07	8.70372E-07
Aldrin				

PHASE II HARBOR LOCATIONS TABLE 5-1A
ESTIMATED CANCER AND NON CANCER RISK FOR MEAT FROM LOBSTER TAIL AND CLAW FOR CANCER AND NONCANCER CALCULATIONS

Chemical of Potential Concern	Carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Carcinogenic High End Estimated Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Carcinogenic High End Estimate Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	1.49E-06	1.13E-06	4.31E-05	3.27E-05
Cadmium				
assume Chromium III				
assume Chromium VI				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (Total)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	7.59E-09	5.06E-09	2.19E-07	1.46E-07
Chrysene	1.18E-10	7.86E-11	3.42E-09	2.27E-09
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	1.14E-07	7.41E-08	3.29E-06	2.14E-06
Perylene				
Indeno(1,2,3-cd)pyrene	5.82E-09	3.85E-09	1.68E-07	1.11E-07
Dibenz(a,h)anthracene	6.98E-09	4.83E-09	2.02E-07	1.40E-07
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of PCB Congeners.	1.43E-07	1.33E-07	4.14E-06	3.83E-06
Hexachlorobenzene	4.36E-10	3.92E-10	1.26E-08	1.13E-08
Lindane (gamma-BHC)	9.63E-10	9.37E-10	2.78E-08	2.71E-08
Alpha-chlordane as chlorodane	3.13E-10	2.97E-10	9.03E-09	8.57E-09
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	1.54E-10	1.31E-10	4.45E-09	3.79E-09
o,p -DDE				
p,p -DDE	1.04E-09	1.00E-09	3.01E-08	2.90E-08
o,p -DDT				
p,p -DDT	7.16E-11	7.12E-11	2.07E-09	2.06E-09
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	1.77E-06	1.36E-06	5.13E-05	3.92E-05

PHASE II HARBOR LOCATIONS TABLE 5-1A
ESTIMATED CANCER AND NON CANCER RISK FOR MEAT FROM LOBSTER TAIL AND CLAW FOR CANCER AND NONCANCER CALCULATIONS

Chemical of Potential Concern	Non-carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Non-carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Non-carcinogenic High End Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Non-carcinogenic High End Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	Intake/RfD	Intake/Rfd	Intake/Rfd	Intake/Rfd
Aluminum	1.06E-06	9.38E-06	9.19E-05	8.12E-05
Silver	4.76E-04	4.26E-04	4.12E-03	3.69E-03
10% of total Arsenic	2.58E-02	1.96E-02	2.23E-01	1.69E-01
Cadmium	2.67E-04	1.95E-04	2.31E-03	1.69E-03
assume Chromium III	*	*	*	*
assume Chromium VI				
Copper	4.04E-03	2.77E-03	3.50E-02	2.40E-02
Iron				
Manganese	8.16E-05	5.85E-05	7.07E-04	5.06E-04
Nickle	4.71E-05	4.60E-05	4.07E-04	3.98E-04
Lead				
Zinc	1.78E-03	1.76E-03	1.54E-02	1.52E-02
Mercury (Total)	1.36E-02	1.15E-02	1.18E-01	9.96E-02
Methyl-Mercury	1.44E-02	1.65E-02	1.25E-01	1.43E-01
Fluorene	5.19E-07	3.71E-07	4.49E-06	3.21E-06
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	6.78E-06	4.57E-06	5.86E-05	3.96E-05
Pyrene	1.55E-05	1.00E-05	1.34E-04	8.69E-05
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene	2.38E-05	1.63E-05	2.06E-04	1.41E-04
Sum of measured PAHs				
Sum of PCB Congeners.				
Hexachlorobenzene	2.65E-06	2.38E-06	2.29E-05	2.06E-05
Lindane (gamma-BHC)	1.92E-05	1.87E-05	1.66E-04	1.62E-04
Alpha-chlordane as chlorodane	3.11E-05	2.96E-05	2.70E-04	2.56E-04
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	3.27E-06	3.25E-06	2.83E-05	2.82E-05
Aldrin				
	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ
	0.060655	0.052929	0.524948	0.458085

PHASE II HARBOR DATA
TABLE 5-1B
ESTIMATED CANCER AND NON-CANCER RISK FOR LOBSTER HEPATOPANCREAS (TOMALLEY)

Chemical of Potential Concern	Carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic High End Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic High End Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	6.17E-07	5.27E-07	1.79E-05	1.52E-05
Cadmium				
assume Chromium III				
assume Chromium VI				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (Total)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	4.11E-08	1.87E-08	1.19E-06	5.40E-07
Chrysene	6.41E-10	3.21E-10	1.85E-08	9.28E-09
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	7.74E-07	4.73E-07	2.24E-05	1.37E-05
Perylene				
Indeno(1,2,3-cd)pyrene	1.73E-08	8.54E-09	5.01E-07	2.47E-07
Dibenz(a,h)anthracene	3.37E-08	1.84E-08	9.74E-07	5.33E-07
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of PCB Congeners.	2.79E-06	2.54E-06	8.05E-05	7.34E-05
Hexachlorobenzene	5.75E-09	5.30E-09	1.66E-07	1.53E-07
Lindane (gamma-BHC)				
Alpha-chlordane as chlorodane	7.73E-09	6.59E-09	2.23E-07	1.91E-07
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	9.07E-09	6.44E-09	2.62E-07	1.86E-07
o,p -DDE				
p,p -DDE	7.09E-08	6.42E-08	2.05E-06	1.86E-06
o,p -DDT				
p,p -DDT	6.16E-09	4.97E-09	1.78E-07	1.44E-07
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	4.37E-06	3.67E-06	1.26E-04	1.06E-04

PHASE II HARBOR DATA
TABLE 5-1B
ESTIMATED CANCER AND NON-CANCER RISK FOR LOBSTER HEPATOPANCREAS (TOMALLEY)

Chemical of Potential Concern	Non-carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic High End Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic High End Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	Intake/RfD	Intake/Rfd	Intake/RfD	Intake/Rfd
Aluminum	0.000034	0.000017	0.000291	0.000145
Silver	0.000507	0.000413	0.004402	0.003586
10% of total Arsenic	0.010662	0.009093	0.092514	0.078905
Cadmium	0.088504	0.048962	0.767961	0.424849
assume Chromium III	*	*	*	*
assume Chromium VI				
Copper	0.057543	0.027801	0.499310	0.241232
Iron				
Manganese	0.000088	0.000077	0.000767	0.000667
Nickle	0.000052	0.000046	0.000453	0.000402
Lead				
Zinc	0.000485	0.000374	0.004206	0.003245
Mercury (Total)	0.003805	0.002076	0.033016	0.018010
Methyl-Mercury	0.002658	0.001957	0.023066	0.023066
Fluorene	0.000002	0.000001	0.000016	0.000010
Phenanthrene	0.000197	0.000096	0.001705	0.000836
Anthracene	0.000001	0.000001	0.000012	0.000005
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	0.000050	0.000025	0.000430	0.000215
Pyrene	0.000041	0.000021	0.000360	0.000179
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of PCB Congeners.				
Hexachlorobenzene	0.000035	0.000032	0.000303	0.000279
Lindane (gamma-BHC)	0.000034	0.000031	0.000298	0.000270
Alpha-chlordane as chlorodane	0.000770	0.000657	0.006679	0.005699
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	0.000282	0.000227	0.002444	0.001972
	Non-cancer risk Hazard Quotent	Non-cancer risk Hazard Quotent	Non-cancer risk Hazard Quotent	Non-cancer risk Hazard Quotent
	0.165750	0.091907	1.438234	0.803574

PHASE II HARBOR LOCATIONS TABLE 5-1C
ESTIMATI CANCER AND NON-CANCER RISK FOR USSELS

Chemical of Potential Concern	Estimated Carcinogenic Risk for Central Tendency using Maximum concentration Mytilus edulis mussel indigenous	Estimated Carcinogenic Risk for Central Tendency using 95% UCL Mytilusius edulis mussel indigenous	Estimated Carcinogenic Risk for High End Assumtions Using Maximum Concentration Mytilus edulis mussel indigenous	Estimated Carcinogenic Risk for High End Assumtions using 95% UCL Mytilusius edulis mussel indigenous
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	1.79E-05	1.42E-05	1.01E-04	8.02E-05
Cadmium				
assume Chromium III				
assume Chromium IV				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (Total)				
Methyl-Mercury (no value)				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene (95UCL>max)				
Benz(a)anthracene	9.88E-06	1.14E-06	5.59E-05	6.43E-06
Chrysene	7.60E-08	9.96E-09	4.30E-07	5.63E-08
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	2.93E-05	3.97E-06	1.66E-04	2.25E-05
Perylene				
Indeno(1,2,3-cd)pyrene	1.01E-06	2.68E-07	5.69E-06	1.52E-06
Dibenz(a,h)anthracene	3.45E-06	1.41E-06	1.95E-05	7.96E-06
Benzo(g,h,i)perylene				
Sum of measured PAHs				
8 (2 4') Congener number; position of chlorines				
18 (2 2' 5)				
28 (2 4 4')				
52 (2 2' 5 5')				
44 (2 2' 3 5')				
66 (2 3' 4 4')				
101 (2 2' 4 5 5')				
PCB118				
153 (2 2' 4 4' 5 5')				
105 (2 3 3' 4 4')				
138 (2 2' 3 4 4' 5)				
187 (2 2' 3 4' 5 5' 6)				
128 (2 2' 3 3' 4 4')				
180 (2 2' 3 4 4' 5 5')				
170 (2 2' 3 3' 4 4' 5)				
195 (2 2' 3 3' 4 4' 5 6)				
206 (2 2' 3 3' 4 4' 5 5' 6)				
209 (2 2' 3 3' 4 4' 5 5' 6 6')				
Sum of Congeners.	1.29E-05	4.45E-06	7.27E-05	2.52E-05
Hexachlorobenzene	1.25E-07	6.75E-08	7.06E-07	3.82E-07
Lindane (gamma-BHC)	9.02E-09	8.79E-09	5.10E-08	4.97E-08
Alpha-chlordane as chlorodane	4.75E-08	1.93E-08	2.69E-07	1.09E-07
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide	1.32E-07	1.25E-07	7.45E-07	7.06E-07
Mirex				
o,p -DDD				
p,p -DDD	3.84E-08	1.42E-08	2.17E-07	8.04E-08
o,p -DDE				
p,p -DDE	5.21E-08	3.00E-08	2.95E-07	1.70E-07
o,p -DDT				
p,p -DDT	9.44E-08	4.66E-08	5.34E-07	2.63E-07
Aldrin	8.93E-08	8.68E-08	5.05E-07	4.91E-07
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	7.51E-05	2.58E-05	4.25E-04	1.46E-04

PHASE II HARBOR LOCATIONS TABLE 5-1C
ESTIMATE CANCER AND NON-CANCER RISK FOR SSELS

Chemical of Potential Concern	Estimated Non-Carcinogenic Risk for Central Tendency using Maximum concentration Mytilus edulis mussel indigenous	Estimated Non-Carcinogenic Central Tendency using 95% UCL Mytilusius edulis mussel indigenous	Estimated Non-carcinogenic Risk for High End using Maximum concentration Mytilus edulis mussel indigenous	Estimated Non-Carcinogenic Risk for High End assumptions using 95% UCL Mytilusius edulis mussel indigenous
	Intake/RfD	Intake/Rfd	Intake/RfD	Intake/Rfd
Aluminum	0.072887	0.039255	0.123612	0.066575
Silver	0.011202	0.004990	0.018997	0.008462
10% of total Arsenic	0.309971	0.245095	0.525694	0.415668
Cadmium	0.535464	0.331959	0.908118	0.562984
assume Chromium III	*	*	*	*
assume Chromium IV				
Copper	0.061290	0.029794	0.103944	0.050530
Iron				
Manganese	0.521890	0.129978	0.885098	0.220435
Nickle	0.416472	0.152686	0.706314	0.258947
Lead				
Zinc	0.051125	0.028608	0.086705	0.048517
Mercury (Total)	1.115091	0.117983	1.891134	0.262366
Methyl-Mercury (no value)				
Fluorene	0.000654	0.000091	0.001109	0.000154
Phenanthrene	0.052008	0.005531	0.088203	0.009381
Anthracene	0.000074	0.000012	0.000125	0.000021
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	0.008060	0.000896	0.013669	0.001519
Pyrene (95UCL>max)	0.007218	0.000464	0.012242	0.012242
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene	0.002394	0.000622	0.004059	0.001054
Sum of measured PAHs				
8 (2 4') Congener number; position of chlorines				
18 (2 2' 5)				
28 (2 4 4')				
52 (2 2' 5 5')				
44 (2 2' 3 5')				
66 (2 3' 4 4')				
101 (2 2' 4 5 5')				
PCB118				
153 (2 2' 4 4' 5 5')				
105 (2 3 3' 4 4')				
138 (2 2' 3 4 4' 5)				
187 (2 2' 3 4' 5 5' 6)				
128 (2 2' 3 3' 4 4')				
180 (2 2' 3 4 4' 5 5')				
170 (2 2' 3 3' 4 4' 5)				
195 (2 2' 3 3' 4 4' 5 6)				
206 (2 2' 3 3' 4 4' 5 5' 6)				
209 (2 2' 3 3' 4 4' 5 5' 6 6')				
Sum of Congeners.				
Hexachlorobenzene	0.000758	0.000410	0.001286	0.000695
Lindane (gamma-BHC)	0.000180	0.000175	0.000305	0.000297
Alpha-chlordane as chlorodane	0.004733	0.001923	0.008026	0.003260
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide	0.008659	0.008201	0.014685	0.013909
Mirex	0.000136	0.000132	0.000231	0.000224
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	0.004319	0.002130	0.007325	0.003613
Aldrin	0.001362	0.001324	0.002310	0.002245
	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ
	3.185947	1.102257	5.403193	1.943098

PH E II HARBOR LOCATIONS TABLE 5
ESTIMATED CANCER AND NON-CANCER RISK FOR FLOUNDER FILET

Chemical of Potential Concern	Estimated Carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Estimated Carcinogenic Risk for Central Tendency using 95% UCL concentration Pseudo-pleuronectes americanus filet flounder flesh	Estimated Carcinogenic Risk for High End assumptions using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Estimated Carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	1.68E-05	1.42E-05	9.53E-05	8.03E-05
Cadmium				
assume Chromium III				
assume Chromium VI				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (Total)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	2.44E-08	1.98E-08	1.38E-07	1.38E-07
Chrysene	2.46E-10	2.45E-10	1.39E-09	1.39E-09
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	5.58E-08	5.26E-08	3.15E-07	2.98E-07
Perylene				
Indeno(1,2,3-cd)pyrene	1.65E-09	1.55E-09	9.34E-09	8.79E-09
Dibenz(a,h)anthracene	5.64E-07	4.30E-07	3.19E-06	3.19E-06
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of PCB Congeners.	8.22E-06	6.89E-06	4.65E-05	3.90E-05
Hexachlorobenzene	6.33E-09	6.06E-09	3.58E-08	3.43E-08
Lindane (gamma-BHC)	5.92E-09	4.89E-09	3.35E-08	2.77E-08
Alpha-chlordane as chlorodane	3.40E-08	2.54E-08	1.92E-07	1.44E-07
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	1.04E-08	9.36E-09	5.86E-08	5.29E-08
o,p -DDE				
p,p -DDE	2.25E-08	2.16E-08	1.27E-07	1.22E-07
o,p -DDT				
p,p -DDT	2.49E-09	2.34E-09	1.41E-08	1.32E-08
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	2.58E-05	2.17E-05	1.46E-04	1.23E-04

PHASE II HARBOR LOCATIONS TABLE 5.4D
ESTIMATED CANCER AND NON-CANCER RISK FOR FLOUNDER FILET

Chemical of Potential Concern	Estimated Non-carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Estimated Non-carcinogenic Risk for Central Tendency assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh	Estimated Non-carcinogenic Risk for High End assumptions using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Estimated Non-carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh
	Hazard Quotent Intake/RfD	Hazard Quotent Intake/RfD	Hazard Quotent Intake/RfD	Hazard Quotent Intake/RfD
Aluminum	3.53E-04	2.79E-04	5.98E-04	4.73E-04
Silver	2.91E-03	3.37E-03	4.93E-03	4.93E-03
10% of total Arsenic	2.91E-01	2.45E-01	4.93E-01	4.16E-01
Cadmium	3.55E-03	3.32E-03	6.02E-03	5.64E-03
assume Chromium III				
assume Chromium VI				
Copper	1.15E-03	9.10E-04	1.96E-03	1.54E-03
Iron				
Manganese	7.32E-05	7.17E-05	1.24E-04	1.22E-04
Nickle	4.20E-03	4.21E-03	7.13E-03	7.13E-03
Lead				
Zinc	5.58E-03	5.41E-03	9.46E-03	9.18E-03
Mercury (Total)	8.97E-02	8.36E-02	1.52E-01	1.42E-01
Methyl-Mercury	3.15E-01	2.26E-01	5.35E-01	5.35E-01
Fluorene	2.30E-06	2.19E-06	3.90E-06	3.71E-06
Phenanthrene	6.54E-05	6.17E-05	1.11E-04	1.05E-04
Anthracene	8.17E-07	5.58E-07	1.39E-06	9.46E-07
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	3.05E-06	2.87E-06	5.17E-06	4.87E-06
Pyrene	8.82E-06	7.86E-06	1.50E-05	1.33E-05
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene	1.44E-04	1.10E-04	2.45E-04	2.45E-04
Sum of measured PAHs				
Sum of PCB Congeners.				
Hexachlorobenzene				
Lindane (gamma-BHC)	1.18E-04	9.76E-05	2.00E-04	1.66E-04
Alpha-chlordane as chlorodane	3.38E-03	2.53E-03	5.74E-03	4.29E-03
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	1.14E-04	1.07E-04	1.93E-04	1.81E-04
Aldrin				
	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ
	0.717603	0.575866	1.217015	1.126505

PHASE II HARBOR LOCATIONS TABLE 5-1E
ESTIMATED CAN R AND NON-CANCER RATES FOR OUNDER LIVER

Chemical of Potential Concern	Estimated Carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo- pleuronectes americanus liver flounder liver	Estimated Carcinogenic Risk for Central Tendency using 95% UCL concentration Pseudo- pleuronectes americanus liver flounder liver	Estimated Carcinogenic Risk for High End assumptions using Maximum Concentration for Pseudo- pleuronectes americanus liver flounder liver	Estimated Carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo- pleuronectes americanus liver flounder liver
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	9.34778E-06	7.72796E-06	3.12523E-05	2.58368E-05
Cadmium				
assume Chromium III				
assume Chromium VI				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (Total)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	2.37637E-08	2.35981E-08	7.94486E-08	7.88951E-08
Chrysene	2.9419E-10	2.80651E-10	9.83561E-10	9.38295E-10
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	2.36742E-06	1.54128E-06	7.91496E-06	5.15295E-06
Perylene				
Indeno(1,2,3-cd)pyrene	3.96061E-08	3.63077E-08	1.32414E-07	1.21387E-07
Dibenz(a,h)anthracene	4.57137E-07	2.13484E-07	1.52834E-06	1.52834E-06
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of PCB Congeners.	9.6611E-05	8.9593E-05	3.2300E-04	2.9954E-04
Hexachlorobenzene	6.67456E-08	6.06717E-08	2.2315E-07	2.02843E-07
Lindane (gamma-BHC)				
Alpha-chlordane as chlorodane	4.17182E-07	3.47334E-07	1.39476E-06	1.16124E-06
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	1.37191E-07	1.34403E-07	4.5867E-07	4.49347E-07
o,p -DDE				
p,p -DDE	5.4602E-07	4.86793E-07	1.8255E-06	1.62749E-06
o,p -DDT				
p,p -DDT	3.8129E-08	1.27476E-07	1.27476E-07	1.27476E-07
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	1.10E-04	1.00E-04	3.68E-04	3.36E-04

PHASE II HARBOR LOCATIONS TABLE 5-1E
ESTIMATED CAN ER AND NON-CANCER RATES FOR OUNDER LIVER

Chemical of Potential Concern	Estimated Non-carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Estimated Non-carcinogenic Risk for Central Tendency assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver	Estimated Non-carcinogenic Risk for High End assumptions using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Estimated Non-carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver
	Intake/RfD	Intake/Rfd	Intake/Rfd	Intake/Rfd
Aluminum	0.000628234	0.000499106	0.000628234	0.000499106
Silver	0.011812944	0.011331935	0.011812944	0.011331935
10% of total Arsenic	0.1612221	0.133284825	0.1612221	0.133284825
Cadmium	0.0376272	0.033087921	0.0376272	0.033087921
assume Chromium III	*	*	*	*
assume Chromium VI				
Copper	0.04865848	0.044287531	0.04865848	0.044287531
Iron				
Manganese	0.000855855	0.000821296	0.000855855	0.000821296
Nickle	0.002505776	0.002470499	0.002505776	0.002470499
Lead				
Zinc	0.027772351	0.027334266	0.027772351	0.027334266
Mercury (Total)	0.0624507	0.051320866	0.0624507	0.051320866
Methyl-Mercury	0.05052996	0.05052996	0.05052996	0.05052996
Fluorene	8.01055E-06	8.01898E-06	8.01055E-06	8.01898E-06
Phenanthrene	0.000197935	0.000188047	0.000197935	0.000188047
Anthracene	7.64546E-07	7.51636E-07	7.64546E-07	7.51636E-07
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	1.45217E-05	1.17952E-05	1.45217E-05	1.17952E-05
Pyrene	1.31695E-05	1.29251E-05	1.31695E-05	1.29251E-05
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene	0.000139191	7.82706E-05	0.000139191	0.000143459
Sum of measured PAHs				
Sum of PCB Congeners.				
Hexachlorobenzene	0.000404708	0.000367879	0.000404708	0.000367879
Lindane (gamma-BHC)	0.001581112	0.001224283	0.001581112	0.001224283
Alpha-chlordane as chlorodane	0.041510627	0.034560571	0.041510627	0.034560571
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	0.001740744	0.001493292	0.001740744	0.001740744
Aldrin				
	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ
	0.449674	0.392914	0.449674	0.393227

TABLE 6.0B PHASE II
PORTSMOUTH HARBOR
ESTIMATED ACCEPTABLE SEAFOOD CONSUMPTION RATES

		ESTIMATED NUMBER OF MEALS		ESTIMATED NUMBER OF MEALS		
MAXIMUM CONCENTRATION BASED SERVINGS PER YEAR (10^{-4} CANCER RISK)						
SEAFOOD	CENTRAL TENDENCY SERVING SIZE (oz)	Central Tendency (9 years)[1]	HIGH END SERVING SIZE (oz)	High End (30 years)[1]		
Lobster (tail and claw) Meal	3.351	33.8	3.351	10.1		
Lobster (TOMALLEY) Meal	0.670	13.7	0.670	4.1		
Lobster (tail, claw, tomalley) Meal	4.021	9.8	4.021	2.9		
Mussel Meal	8.000	6.6	8.000	2.0		
Flounder Filet Meal	8.000	19.4	8.000	5.8		
Flounder Liver Meal	0.670	31.8	0.670	9.5		
Flounder Liver And Filet Meal	8.670	5.4	8.670	1.4		
AVERAGE (95% UCL OF MEAN ASSUMING NORMAL DISTRIBUTION)			CONCENTRATION BASED SERVINGS PER YEAR (10^{-4} CANCER RISK)			
SEAFOOD	CENTRAL TENDENCY SERVING SIZE (oz)	Central Tendency (9 years)[1]	HIGH END SERVING SIZE (oz)	High End (30 years)[1]		
Lobster (tail and claw) Meal	3.351	44.3	3.351	13.3		
Lobster (TOMALLEY) Meal	0.670	16.3	0.670	4.9		
Lobster (tail, claw, tomalley) Meal	4.021	11.9	4.021	3.6		
Mussel Meal	8.000	19.1	8.000	5.8		
Flounder Filet Meal	8.000	22.80	8.000	6.9		
Flounder Liver Meal	0.670	34.9	0.670	10.4		
Flounder Filet/Liver Meal	8.670	6.0	8.670	2.3		

4/10/96

PHASE II SEAFOOD RISK ASSESSMENT TABLES

REFERENCE LOCATIONS
PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

PREPARED FOR THE
NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
BY THE NAVY ENVIRONMENTAL HEALTH CENTER
NORFOLK, VIRGINIA
APRIL 1996

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TABLE 2-1 PHASE II REFERENCE LOCATIONS
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	95% UCL Average * Pseudo-pleuronectes americanus filet flounder flesh	MAXIMUM Pseudo-pleuronectes americanus filet flounder flesh	95% UCL Average Pseudo-pleuronectes americanus liver flounder liver	Maximum Pseudo-pleuronectes americanus liver flounder liver	95% UCL Average Homarus americanus tail/claw Adult Lobster
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
Aluminum	0.481	0.492	2.697	2.667	0.375
Silver	0.034	0.029	*2.812*	*2.582*	0.137
10% of total Arsenic	0.935	1.012	0.964	0.881	0.559
Cadmium	0.004	0.004	1.320	1.225	0.003
assume Chromium III	0.065	0.072	0.121	0.117	0.061
assume Chromium IV	0.065	0.072	0.121	0.117	0.061
Copper	0.067	0.078	*34.589*	*30.842*	5.791
Iron	1.223	1.234	371.146	348.363	0.958
Manganese	0.024	0.025	*3.747*	*3.055*	0.216
Nickle	0.394	0.428	2.546	1.774	0.041
Lead	0.018	0.019	0.897	0.867	0.035
Zinc	2.453	2.517	39.039	38.772	28.113
Mercury (Total)	0.089	0.096	*0.070*	*0.062*	0.209
Methyl-Mercury	*0.096*	*0.071*	0.067	0.031	*0.825*
Fluorene	0.00024	0.00026	0.00068	0.00067	0.00032
Phenanthrene	0.00056	0.00057	0.00260	0.00238	0.00240
Anthracene	0.00065	0.00058	0.00115	0.00083	0.00065
C1-phenanthrene + anthracene	0.00055	0.00062	0.00467	0.00391	0.00526
C2-phenanthrene + anthracene	0.00035	0.00036	0.00253	0.00225	0.00715
C3-phenanthrene + anthracene	0.00052	0.00052	0.00415	0.00345	0.00658
C4-phenanthrene + anthracene	0.00085	0.00099	0.00335	0.00290	0.00619
Sum C1:C4-phenanthrene + anthracene	0.00227	0.00249	0.01471	0.01251	0.02518
Fluoranthene	0.00021	0.00022	0.00081	0.00078	0.02207
Pyrene	0.00050	0.00055	0.00175	0.00167	0.02589
Benz(a)anthracene	0.00054	0.00055	0.00079	0.00079	0.00258
Chrysene	0.00054	0.00055	0.00079	0.00079	0.00396
Sum of benzofluoranthenes as benzo(b) fluoranthene	0.00021	0.00021	0.00121	0.00109	0.01139
Benzo(e)pyrene	0.00019	0.00019	0.00153	0.00137	0.00321
Benzo(a)pyrene	0.00015	0.00018	0.00169	0.00133	0.00345
Perylene	0.00091	0.00102	0.00197	0.00145	0.00090
Indeno(1,2,3-cd)pyrene	0.00006	0.00006	0.00211	0.00131	0.00228
Dibenz(a,h)anthracene	0.00128	0.00118	0.00006	0.00005	0.00036
Benzo(g,h,i)perylene	0.00005	0.00005	0.00282	0.00174	0.00271
Sum of measured PAHs	0.00412	0.00420	0.00412	0.00420	0.10552

TABLE 2-1 PHASE II REFERENCE LOCATIONS
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	Maximum Homarus americanus tail/claw Adult Lobster	95% UCL Average* Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Maximum Homarus americanus hepatopancreas (Tomalley) Adult Lobster	95% UCL Average* Mytilus edulis mussel indigenous	Maximum Mytilus edulis mussel indigenous
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
Aluminum	0.375	1.114	1.254	89.441	85.136
Silver	0.161	0.315	0.296	0.105	0.115
10% of total Arsenic	0.586	1.044	1.143	0.235	0.177
Cadmium	0.003	6.271	6.861	0.744	0.690
assume Chromium III	0.059	0.154	0.145	1.805	0.878
assume Chromium IV	0.059	0.154	0.145	1.805	0.878
Copper	*5.996*	119.722	128.542	2.680	2.462
Iron	1.211	39.981	44.950	1008.619	196.069
Manganese	0.256	2.816	2.815	47.786	60.520
Nickle	0.041	1.302	1.455	*1.071*	*0.548*
Lead	0.050	0.292	0.418	0.923	1.059
Zinc	28.698	35.421	38.272	20.371	14.652
Mercury (Total)	0.323	*0.114*	*0.127*	*0.055*	0.097
Methyl-Mercury	*0.304*	0.060	0.053		
Fluorene	0.00039	0.00622	0.00720	0.00290	0.00414
Phenanthrene	0.00334	0.02611	0.03446	0.00854	0.01630
Anthracene	0.00064	0.00163	0.00208	0.00360	0.00553
C1-phenanthrene + anthracene	0.00721	0.02854	0.03902	0.00964	0.01411
C2-phenanthrene + anthracene	0.01005	0.03151	0.04431	0.01906	0.03752
C3-phenanthrene + anthracene	0.00860	0.01737	0.02409	0.02039	0.04181
C4-phenanthrene + anthracene	0.00860	0.01068	0.01435	0.02973	0.06146
Sum C1:C4-phenanthrene + anthracene	0.03447	0.08811	0.12176	0.07882	0.15490
Fluoranthene	0.03456	0.05430	0.06723	0.01977	0.02814
Pyrene	0.03735	0.01978	0.02615	0.02259	0.04221
Benz(a)anthracene	0.00405	0.00315	0.00337	0.00806	0.01352
Chrysene	0.00613	0.01318	0.01456	0.01130	0.01868
Sum of benzofluoranthenes as benzo(b) fluoranthene	0.01776	0.01553	0.01889		
Benzo(e)pyrene	0.00479	0.01156	0.01266	0.01493	0.03216
Benzo(a)pyrene	0.00543	0.00729	0.00780	0.00652	0.01122
Perylene	0.00134	0.00968	0.01180	0.00400	0.00681
Indeno(1,2,3-cd)pyrene	0.00349	0.00463	0.00643	0.00590	0.00816
Dibenz(a,h)anthracene	0.00034	0.00109	0.00142	0.00291	0.00292
Benzo(g,h,i)perylene	0.00364	0.01164	0.01408	0.00592	0.01001
Sum of measured PAHs	0.15731	0.24405	0.30551	0.18520	0.32040

TABLE 2-1 PHASE II REFERENCE LOCATIONS
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	95% UCL Average * Pseudo-pleuronectes americanus filet flounder flesh	MAXIMUM Pseudo-pleuronectes americanus filet flounder flesh	95% UCL Average Pseudo-pleuronectes americanus liver flounder liver	Maximum Pseudo-pleuronectes americanus liver flounder liver	95% UCL Average Homarus americanus tail/claw Adult Lobster
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
8 (2 4') Congener number; position of chlorines	0.00046	0.00065	0.00055	0.00046	0.00012
18 (2 2' 5)	0.00012	0.00017	0.00039	0.00033	0.40143
28 (2 4 4')	0.00017	0.00018	0.00275	0.00208	0.00024
52 (2 2' 5 5')	0.00045	0.00060	0.00324	0.00240	0.00006
44 (2 2' 3 5')	0.00010	0.00013	0.00085	0.00066	0.00002
66 (2 3' 4 4')	0.00070	0.00084	0.01095	0.00838	0.00017
101 (2 2' 4 5 5')	0.00164	0.00213	0.01783	0.01422	0.00016
PCB118	0.00381	0.00499	0.03471	0.03095	0.00065
153 (2 2' 4 4' 5 5')	0.02317	0.02860	0.05955	0.05811	0.00501
105 (2 3 3' 4 4')	0.00141	0.00186	0.01364	0.01107	0.00019
138 (2 2' 3 4 4' 5)	0.00734	0.00977	0.05992	0.05373	0.00077
187 (2 2' 3 4' 5 5' 6)	0.00284	0.00386	0.02121	0.01816	0.00036
128 (2 2' 3 3' 4 4')	0.00122	0.00157	0.01099	0.00870	0.00015
180 (2 2' 3 4 4' 5 5')	0.00378	0.00511	0.02952	0.02812	0.00043
170 (2 2' 3 3' 4 4' 5)	0.00161	0.00220	0.01961	0.01729	0.00018
195 (2 2' 3 3' 4 4' 5 6)	0.00049	0.00068	0.00432	0.00380	0.00004
206 (2 2' 3 3' 4 4' 5 5' 6)	0.00086	0.00117	0.00649	0.00581	0.00005
209 (2 2' 3 3' 4 4' 5 5' 6 6')	0.00047	0.00066	0.00239	0.00220	0.00004
Sum of PCB Congeners.	0.03619	0.04849	0.95488	0.87244	0.00427
Hexachlorobenzene	0.00015	0.00015	0.00194	0.00176	0.00008
Lindane (gamma-BHC)	0.00016	0.00022	0.00007	0.00007	0.00036
Alpha-chlordane as chlorodane	0.00032	0.00036	0.00663	0.00534	0.00006
Trans-nonachlor	0.00062	0.00075	0.01223	0.01028	0.00014
Heptachlor					
Heptachlor epoxide					
Mirex					
o,p -DDD					
p,p -DDD	0.00045	0.00050	0.01126	0.01013	0.00016
o,p -DDE					
p,p -DDE	0.00557	0.00781	0.04465	0.04234	0.00069
o,p -DDT					
p,p -DDT	0.00017	0.00017	0.00533	0.00482	0.00008
Aldrin					

TABLE 2-1 PHASE II REFERENCE LOCATIONS
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	Maximum Homarus americanus tail/claw Adult Lobster	95% UCL Average* Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Maximum Homarus americanus hepatopancreas (Tomalley) Adult Lobster	95% UCL Average* Mytilus edulis mussel indigenous	Maximum Mytilus edulis mussel indigenous
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
8 (2 4') Congener number; position of chlorines	0.00013	0.00110	0.00128	0.00040	0.00041
18 (2 2' 5)	0.37871	0.00084	0.00113	0.00042	0.00043
28 (2 4 4')	0.00033	0.00084	0.00113	0.00020	0.00020
52 (2 2' 5 5')	0.00007	0.00369	0.00464	0.00035	0.00036
44 (2 2' 3 5')	0.00002	0.00054	0.00057	0.00016	0.00017
66 (2 3' 4 4')	0.00016	0.02220	0.02345	0.00009	0.00009
101 (2 2' 4 5 5')	0.00021	0.01084	0.02345	0.00015	0.00015
PCB118	0.00066	0.07658	0.08629	0.00165	0.00242
153 (2 2' 4 4' 5 5')	0.00541	0.13057	0.14241	0.02112	0.03110
105 (2 3 3' 4 4')	0.00020	0.02675	0.03007	0.00029	0.00053
138 (2 2' 3 4 4' 5)	0.00086	0.10903	0.11594	0.00220	0.00345
187 (2 2' 3 4' 5 5' 6)	0.00041	0.04778	0.05215	0.00078	0.00121
128 (2 2' 3 3' 4 4')	0.00014	0.02076	0.02313	0.00047	0.00065
180 (2 2' 3 4 4' 5 5')	0.00054	0.06379	0.02313	0.00029	0.00035
170 (2 2' 3 3' 4 4' 5)	0.00023	0.02465	0.02830	0.00016	0.00017
195 (2 2' 3 3' 4 4' 5 6)	0.00005	0.00622	0.00598	0.00010	0.00010
206 (2 2' 3 3' 4 4' 5 5' 6)	0.00005	0.00937	0.00969	0.00011	0.00011
209 (2 2' 3 3' 4 4' 5 5' 6 6')	0.00005	0.00403	0.00414	0.00009	0.00009
Sum of PCB Congeners.	0.00468	0.55080	0.59748	0.01057	0.01493
Hexachlorobenzene	0.00009	0.00353	0.00414	0.00071	0.00072
Lindane (gamma-BHC)	0.00043	0.00218	0.00231	0.00012	0.00012
Alpha-chlordane as chlorodane	0.00007	0.00461	0.00540	0.00006	0.00006
Trans-nonachlor	0.00017	0.01805	0.02405	0.00017	0.00033
Heptachlor				0.00019	0.00035
Heptachlor epoxide				0.00024	0.00024
Mirex				0.00006	0.00006
,p -DDD				0.00124	0.00261
p,p -DDD	0.00017	0.01661	0.02090	0.00069	0.00088
o,p -DDE				0.00007	0.00007
p,p -DDE	0.00072	0.26007	0.28429	0.00218	0.00337
o,p -DDT				0.00022	0.00022
p,p -DDT	0.00008	0.00471	0.00615	0.00223	0.00320
Aldrin				0.00009	0.00009

TABLE 3-1 PHASE II REFERENCE LOCATIONS
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
Aluminum	1.00E+00	NA	*
Silver	5.00E-03	NA	D
Arsenic	3.00E-04	1.50E+00	A
Cadmium	5.00E-04	NA	B1
			*
Chromium (VI)	5.00E-03	Under revision	NA
Copper	4.00E-02	NA	D
Iron	NA	NA	*
Manganese	1.40E-01	NA	D
Nickle (soluable salts)	2.00E-02	NA	NA
Lead			B2
Zinc	3.00E-01	NA	D
Mercury (as inorganic)	3.00E-04		D
Methyl-Mercury	1.00E-04	NA	C
			*

TABLE 3-1 PHASE II REFERENCE LOCATIONS
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
Fluorene	4.00E-02	NA	D
Phenanthrene	***4.00E-03***	***NA***	***D***
Anthracene	3.00E-01	NA	D
C1-phenanthrene + anthracene			*
C2-phenanthrene + anthracene			*
C3-phenanthrene + anthracene			*
C4-phenanthrene + anthracene			*
			*
Fluoranthene	4.00E-02	NA	D
Pyrene	3.00E-02		D
Benzo(a)anthracene (0.1 TEF)	NA	7.30E-01	B2
Chrysene (0.001 TEF)	NA	7.30E-03	B2
Sum of benzofluoranthenes			*
Benzo(e)pyrene	NA	NA	under revision
Benzo(a)pyrene (1.0 TEF)	NA	***7.30E+00***	B2
Perylene	NA	NA	*
Indeno(1,2,3-cd)pyrene (0.1 TEF)	NA	7.30E-01	B2
Dibenz(a,h)anthracene (1.0 TEF)	NA	7.30E+00	B2
Benzo(g,h,i)perylene	4.00E-03	NA	D
Sum of measured PAHs			*

TABLE 3-1 PHASE II REFERENCE LOCATIONS
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
8 (2 4') Congener number; position of chlorines			*
			*
18 (2 2' 5)			*
28 (2 4 4')			*
52 (2 2' 5 5')			*
44 (2 2' 3 5')			*
66 (2 3' 4 4')			*
101 (2 2' 4 5 5')			*
118			*
153 (2 2' 4 4' 5 5')			*
105 (2 3 3' 4 4')			*
138 (2 2' 3 4 4' 5)			*
187 (2 2' 3 4' 5 5' 6)			*
128 (2 2' 3 3' 4 4')			*
180 (2 2' 3 4 4' 5 5')			*
170 (2 2' 3 3' 4 4' 5)			*
195 (2 2' 3 3' 4 4' 5 6)			*
206 (2 2' 3 3' 4 4' 5 5' 6)			*
209 (2 2' 3 3' 4 4' 5 5' 6 6')			*
Sum of PCB Congeners.		7.70E+00	B2
			*

TABLE 3-1 PHASE II REFERENCE LOCATIONS
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
Hexachlorobenzene	8.00E-04	*1.60E+00*	*B2*
Lindane (gamma-BHC)	3.00E-04	1.30E+00	*
Alpha-chlordane (as chlordane)	6.00E-05	1.30E+00	B2
Trans-nonachlor	NA	NA	*
Heptachlor	5.00E-04	4.50E+00	B2
Heptachlor epoxide	1.30E-05	9.10E+00	B2
Mirex	2.00E-04	*1.80E+00*	Under Revision
o,p -DDD (2,4' -DDD)	NA	NA	*
p,p -DDD (4,4'-DDD)	NA	2.40E-01	B2
o,p -DDE (2,4'-DDD)	NA	NA	*
p,p -DDE (4,4'-DDE)	NA	3.40E-01	B2
o,p -DDT (2,4'-DDT)	NA	NA	*
p,p -DDT (4.4'-DDT)	5.00E-04	3.40E-01	B2
Aldrin	3.00E-05	1.70E+01	B2

TABLE 4-1 PHASE II REFERENCE LOCATIONS
EXPOSURE ASSESSMENT INPUT PARAMETERS
(SEAFOOD INTAKE FACTORS)

Central Tendency for Nine year exposure		Exposure Frequency	Exposure Duration	Non-carcinogen Averaging Time	Carcinogen Average Time	Receptor Body Weight
	Ingestion Rate (Kg/meal	Meals per year	Years	Days	Days	Weight in Kg
Lobster tail and claw	0.095	6	9	3285	25550	70
Lobster hepatopancreas	0.019	6	9	3285	25550	70
						70
Flounder Filet	0.0324	350	9	3285	25550	70
Flounder Liver	0.019	350	9	3285	25550	70
Mussels	0.0324	350	9	3285	25550	70

TABLE 4-1 PHASE II REFERENCE LOCATIONS
EXPOSURE ASSESSMENT INPUT PARAMETERS
(SEAFOOD INTAKE FACTORS)

High End for 30 year exposure		Exposure Frequency	Exposure Duration	Non-carcinogen Averaging Time	Carcinogen Average Time	Receptor Body Weight
	Ingestion Rate (Kg/meal	Meals per year	Years		Days	Weight in Kg
Lobster tail and claw	0.095	52	30	10950	25550	70
Lobster hepatopancreas	0.019	52	30	10950	25550	70
Flounder Filet	0.055	350	30	10950	25550	70
Flounder Liver	0.019	350	30	10950	25550	70
Mussels	0.055	350	30	10950	25550	70

PHASE II REFERENCE LOCA''ONS TABLE 4-2A SEAFOOD INTAKF 'LOBSTER TAIL AND CLAW FOR CANCER AND NON-CANCER CALCULA ''ONS

Chemical of Potential Concern	Intake Carcinogenic Central Tendency Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Carcinogenic Central Tendency Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Intake Carcinogenic High End Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Carcinogenic High End Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	1.075E-06	9.971E-07	3.10E-05	3.10E-05
Silver	4.61E-07	3.94E-07	1.33E-05	1.14E-05
10% of total Arsenic	1.68E-06	1.60E-06	4.85E-05	4.64E-05
Cadmium	9.69E-09	9.23E-09	2.80E-07	2.67E-07
assume Chromium III	1.68E-07	1.74E-07	4.85E-06	5.03E-06
assume Chromium IV	1.68E-07	1.74E-07	4.85E-06	5.03E-06
Copper	1.72E-05	1.66E-05	4.97E-04	4.80E-04
Iron	3.47E-06	2.75E-06	1.00E-04	7.94E-05
Manganese	7.35E-07	6.20E-07	2.12E-05	1.79E-05
Nickle	1.19E-07	1.18E-07	3.43E-06	3.42E-06
Lead	1.45E-07	1.01E-07	4.19E-06	2.90E-06
Zinc	8.24E-05	8.07E-05	2.38E-03	2.33E-03
Mercury (inorganic)	9.28E-07	6.01E-07	2.68E-05	1.74E-05
Methyl-Mercury	8.72E-07	5.80E-07	2.52E-05	2.52E-05
Fluorene	1.11E-09	9.21E-10	3.19E-08	2.66E-08
Phenanthrene	9.60E-09	6.88E-09	2.77E-07	1.99E-07
Anthracene	1.84E-09	1.07E-09	5.32E-08	5.32E-08
C1-phenanthrene + anthracene	2.07E-08	1.51E-08	5.98E-07	4.36E-07
C2-phenanthrene + anthracene	2.88E-08	2.05E-08	8.33E-07	5.93E-07
C3-phenanthrene + anthracene	2.47E-08	1.89E-08	7.13E-07	5.45E-07
C4-phenanthrene + anthracene	2.47E-08	1.78E-08	7.13E-07	5.13E-07
Sum C1:C4-phenanthrene + anthracene	9.89E-08	7.23E-08	2.86E-06	2.09E-06
Fluoranthene	9.92E-08	6.34E-08	2.86E-06	1.83E-06
Pyrene	1.07E-07	7.43E-08	3.10E-06	2.15E-06
Benz(a)anthracene	1.16E-08	7.41E-09	3.36E-07	2.14E-07
Chrysene	1.76E-08	1.14E-08	5.08E-07	3.28E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	5.10E-08	3.27E-08	1.47E-06	9.44E-07
Benzo(e)pyrene	1.38E-08	9.21E-09	3.97E-07	2.66E-07
Benzo(a)pyrene	1.56E-08	9.91E-09	4.50E-07	2.86E-07
Perylene	3.85E-09	2.57E-09	1.11E-07	7.42E-08
Indeno(1,2,3-cd)pyrene	1.00E-08	6.53E-09	2.90E-07	1.89E-07
Dibenz(a,h)anthracene	9.87E-10	1.02E-09	2.85E-08	2.96E-08
Benzo(g,h,i)perylene	1.05E-08	7.79E-09	3.02E-07	2.25E-07
Sum of measured PAHs	4.51E-07	3.03E-07	1.30E-05	8.75E-06
Sum of Congeners.	1.34E-08	1.22E-08	3.88E-07	3.54E-07
Hexachlorobenzene	2.52E-10	2.25E-10	7.27E-09	6.49E-09
Lindane (gamma-BHC)	1.24E-09	1.03E-09	3.58E-08	2.99E-08
Alpha-chlordane as chlorodane	1.90E-10	1.80E-10	5.48E-09	5.21E-09
Trans-nonachlor	4.87E-10	4.13E-10	1.41E-08	1.19E-08
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	4.95E-10	4.60E-10	1.43E-08	1.33E-08
o,p -DDE				
p,p -DDE	2.06E-09	1.98E-09	5.95E-08	5.73E-08
o,p -DDT				
p,p -DDT	2.30E-10	2.31E-10	6.65E-09	6.68E-09
Aldrin				

PHASE II REFERENCE LOC/ "ONS TABLE 4-2A SEAFOOD INTAK" LOBSTER TAIL AND CLAW FOR CANCER AND NON-CANCER CALCULA IONS

Chemical of Potential Concern	Intake Non-carcinogenic Central Tendency Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Non-carcinogenic Central Tendency Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Intake Non-carcinogenic High End Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Non-carcinogenic High End Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	8.35E-06	7.75E-06	7.23E-05	7.23E-05
Silver	3.58E-06	3.06E-06	3.10E-05	2.65E-05
10% of total Arsenic	1.31E-05	1.25E-05	1.13E-04	1.08E-04
Cadmium	7.53E-08	7.17E-08	6.51E-07	6.20E-07
assume Chromium III	1.30E-06	1.35E-06	1.13E-05	1.17E-05
assume Chromium IV	1.30E-06	1.35E-06	1.13E-05	1.17E-05
Copper	1.34E-04	1.29E-04	1.16E-03	1.12E-03
Iron	2.70E-05	2.14E-05	2.34E-04	1.85E-04
Manganese	5.71E-06	4.82E-06	4.94E-05	4.17E-05
Nickle	9.22E-07	9.20E-07	7.98E-06	7.96E-06
Lead	1.13E-06	7.81E-07	9.75E-06	6.76E-06
Zinc	6.40E-04	6.27E-04	5.54E-03	5.43E-03
Mercury (Inorganic)	7.21E-06	4.67E-06	6.24E-05	4.04E-05
Methyl-Mercury	6.77E-06	4.51E-06	5.86E-05	5.86E-05
Fluorene	8.59E-09	7.16E-09	7.43E-08	6.20E-08
Phenanthrene	7.46E-08	5.35E-08	6.45E-07	4.63E-07
Anthracene	1.43E-08	8.29E-09	1.24E-07	1.24E-07
C1-phenanthrene + anthracene	1.61E-07	1.17E-07	1.39E-06	1.02E-06
C2-phenanthrene + anthracene	2.24E-07	1.59E-07	1.94E-06	1.38E-06
C3-phenanthrene + anthracene	1.92E-07	1.47E-07	1.66E-06	1.27E-06
C4-phenanthrene + anthracene	1.92E-07	1.38E-07	1.66E-06	1.19E-06
Sum C1:C4-phenanthrene + anthracene	7.69E-07	5.62E-07	6.65E-06	4.86E-06
Fluoranthene	7.71E-07	4.92E-07	6.67E-06	4.26E-06
Pyrene	8.33E-07	5.77E-07	7.21E-06	5.00E-06
Benz(a)anthracene	9.03E-08	5.76E-08	7.82E-07	4.99E-07
Chrysene	1.37E-07	8.83E-08	1.18E-06	7.65E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	3.96E-07	2.54E-07	3.43E-06	2.20E-06
Benzo(e)pyrene	1.07E-07	7.15E-08	9.25E-07	6.19E-07
Benzo(a)pyrene	1.21E-07	7.70E-08	1.05E-06	6.66E-07
Perylene	2.99E-08	2.00E-08	2.59E-07	1.73E-07
Indeno(1,2,3-cd)pyrene	7.79E-08	5.08E-08	6.74E-07	4.39E-07
Dibenz(a,h)anthracene	7.67E-09	7.95E-09	6.63E-08	6.88E-08
Benzo(g,h,i)perylene	8.12E-08	6.05E-08	7.03E-07	5.24E-07
Sum of measured PAHs	3.51E-06	2.35E-06	3.04E-05	2.04E-05
Sum of Congeners.	1.04E-07	9.51E-08	9.03E-07	8.23E-07
Hexachlorobenzene	1.96E-09	1.75E-09	1.69E-08	1.51E-08
Lindane (gamma-BHC)	9.62E-09	8.03E-09	8.32E-08	6.95E-08
Alpha-chlordane as chlorodane	1.48E-09	1.40E-09	1.28E-08	1.21E-08
Trans-nonachlor	3.78E-09	3.21E-09	3.27E-08	2.77E-08
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	3.85E-09	3.57E-09	3.33E-08	3.09E-08
o,p -DDE				
p,p -DDE	1.60E-08	1.54E-08	1.39E-07	1.33E-07
o,p -DDT				
p,p -DDT	1.79E-09	1.80E-09	1.55E-08	1.56E-08
Aldrin				

PI. .E II REFERENCE LOCATIONS TABLE 4 .
SEAFOOD INTAKES LOBSTER HEPATOPANCREAS FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic High End Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic High End Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	9.85E-07	8.99E-07	2.85E-05	2.60E-05
Cadmium				
assume Chromium III				
assume Chromium IV				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (inorganic)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	1.41E-09	1.32E-09	4.08E-08	3.81E-08
Chrysene	6.10E-11	5.52E-11	1.76E-09	1.60E-09
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	3.27E-08	3.05E-08	9.45E-07	8.83E-07
Perylene				
Indeno(1,2,3-cd)pyrene	2.69E-09	1.94E-09	7.79E-08	5.61E-08
Dibenz(a,h)anthracene	5.96E-09	4.59E-09	1.72E-07	1.33E-07
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of Congeners	2.64E-06	2.43E-06	7.64E-05	7.04E-05
Hexachlorobenzene	3.80E-09	3.24E-09	1.10E-07	9.36E-08
Lindane (gamma-BHC)				
Alpha-chlordane as chlorodane	4.03E-09	3.44E-09	1.17E-07	9.96E-08
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	2.88E-09	2.29E-09	8.33E-08	6.62E-08
o,p -DDE				
p,p -DDE	5.55E-08	5.08E-08	1.60E-06	1.47E-06
o,p -DDT				
p,p -DDT	1.20E-09	9.20E-10	3.47E-08	2.66E-08
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	3.74E-06	3.43E-06	1.08E-04	9.93E-05

PH..SE II REFERENCE LOCATIONS TABLE 4-..3
SEAFOOD INTAKES LOBSTER HEPATOPANCREAS FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Non-carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic High End Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic High End Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	Intake/RfD	Intake/Rfd	Intake/RfD	Intake/Rfd
Aluminum	0.000006	0.000005	0.000049	0.000043
Silver	0.000264	0.000281	0.002295	0.002435
10% of total Arsenic	0.017000	0.015520	0.147508	0.134665
Cadmium	0.061199	0.055939	0.531027	0.485386
assume Chromium III	*	*	*	*
assume Chromium IV				
Copper	0.014332	0.013349	0.124364	0.115831
Iron				
Manganese	0.000090	0.000071	0.000778	0.000778
Nickle	0.000324	0.000290	0.002815	0.002520
Lead				
Zinc	0.000569	0.000527	0.004937	0.004569
Mercury (Inorganic)	0.001888	0.001701	0.016378	0.014758
Methyl-Mercury	0.002373	0.001794	0.020595	0.020595
Fluorene	0.000001	0.000001	0.000007	0.000006
Phenanthrene	0.000038	0.000029	0.000333	0.000253
Anthracene	0.000000	0.000000	0.000000	0.000000
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	0.000007	0.000006	0.000065	0.000053
Pyrene	0.000004	0.000003	0.000034	0.000026
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of Congeners.				
Hexachlorobenzene	0.000023	0.000020	0.000200	0.000171
Lindane (gamma-BHC)	0.000034	0.000032	0.000298	0.000281
Alpha-chlordane as chlorodane	0.000402	0.000343	0.003484	0.002976
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	0.000055	0.000042	0.000476	0.000365
Aldrin				
	Non-cancer risk Hazard Quotent	Non-cancer risk Hazard Quotent	Non-cancer risk Hazard Quotent	Non-cancer risk Hazard Quotent
	0.098609	0.089951	0.855644	0.785710

PHASE II REFERENCE LOCATIONS TABLE 4-2C SEAFOOD INTAKES MUSSELS FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central Tendency using Maximum Concentration Mytilus edulis mussel indigenous	Intake Carcinogenic Central Tendency using 95% UCL Mytilusius edulis mussel indigenous	Intake Carcinogenic High End using Maximum Concentration Mytilus edulis mussel indigenous	Intake Carcinogenic High End using 95% UCL Mytilusius edulis mussel indigenous
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	4.86E-03	2.29E-03	2.75E-02	2.75E-02
Silver	6.56E-06	6.02E-06	3.71E-05	3.41E-05
10% of total Arsenic	1.01E-05	7.54E-06	5.71E-05	7.58E-05
Cadmium	3.94E-05	1.97E-05	2.23E-04	2.23E-04
assume Chromium III	5.01E-05	3.81E-05	2.84E-04	2.84E-04
assume Chromium IV	5.01E-05	3.81E-05	2.84E-04	2.84E-04
Copper	1.41E-04	7.16E-05	7.95E-04	7.95E-04
Iron	1.12E-02	5.76E-02	6.33E-02	3.26E-01
Manganese	3.46E-03	1.34E-05	1.95E-02	7.58E-05
Nickle	3.13E-05	6.12E-05	1.77E-04	3.46E-04
Lead	6.05E-05	5.27E-05	3.42E-04	2.98E-04
Zinc	8.37E-04	6.78E-04	4.73E-03	4.73E-03
Mercury (Total)	5.55E-06	3.15E-06	3.14E-05	1.78E-05
Methyl-Mercury (no value)				
Fluorene	2.36E-07	1.66E-07	1.34E-06	9.36E-07
Phenanthrene	9.31E-07	4.88E-07	5.26E-06	2.76E-06
Anthracene	3.16E-07	2.06E-07	1.79E-06	1.16E-06
C1-phenanthrene + anthracene	8.06E-07	5.50E-07	4.56E-06	3.11E-06
C2-phenanthrene + anthracene	2.14E-06	1.09E-06	1.21E-05	6.16E-06
C3-phenanthrene + anthracene	2.39E-06	1.16E-06	1.35E-05	6.59E-06
C4-phenanthrene + anthracene	3.51E-06	1.70E-06	1.99E-05	9.60E-06
Sum C1:C4-phenanthrene + anthracene	8.84E-06	4.50E-06	5.00E-05	2.55E-05
Fluoranthene	1.61E-06	1.13E-06	9.09E-06	6.39E-06
Pyrene (95UCL>max)	2.41E-06	2.41E-06	1.36E-05	1.36E-05
Benz(a)anthracene	7.72E-07	4.60E-07	4.37E-06	2.60E-06
Chrysene	1.07E-06	6.45E-07	6.03E-06	3.65E-06
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene	1.84E-06	8.53E-07	1.04E-05	4.82E-06
Benzo(a)pyrene	6.41E-07	3.73E-07	3.62E-06	2.11E-06
Perylene	3.89E-07	2.29E-07	2.20E-06	1.29E-06
Indeno(1,2,3-cd)pyrene	3.89E-07	3.37E-07	2.20E-06	1.90E-06
Dibenz(a,h)anthracene	1.67E-07	1.66E-07	9.44E-07	9.41E-07
Benzo(g,h,i)perylene	5.72E-07	3.38E-07	3.23E-06	1.91E-06
Sum of measured PAHs	1.83E-05	1.06E-05	1.03E-04	5.98E-05
Sum of Congeners.	6.04E-07	3.93E-07	3.41E-06	2.22E-06
Hexachlorobenzene	4.10E-08	4.05E-08	2.32E-07	2.29E-07
Lindane (gamma-BHC)	6.90E-09	6.80E-09	3.90E-08	3.85E-08
Alpha-chlordane as chlorodane	3.55E-09	3.55E-09	2.01E-08	2.01E-08
Trans-nonachlor	1.87E-08	9.83E-09	1.06E-07	5.56E-08
Heptachlor				
Heptachlor epoxide	1.40E-08	1.38E-08	7.91E-08	7.80E-08
Mirex	3.44E-09	3.39E-09	1.95E-08	1.92E-08
o,p -DDD	1.49E-07	7.06E-08	8.44E-07	4.00E-07
p,p -DDD	5.04E-08	3.92E-08	2.85E-07	2.21E-07
o,p -DDE	3.93E-09	3.85E-09	2.22E-08	2.18E-08
p,p -DDE	1.93E-07	1.25E-07	1.09E-06	7.05E-07
o,p -DDT	1.25E-08	1.23E-08	7.07E-08	6.97E-08
p,p -DDT	1.83E-07	1.28E-07	1.03E-06	7.21E-07
Aldrin	5.15E-09	5.10E-09	2.92E-08	2.89E-08

PHASE II REFERENCE LOCA\ ıS TABLE 4-2C SEAFOOD INTAKES MU. ELS FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Non-Carcinogenic Central Tendency using Maximum concentration Mytilus edulis mussel indigenous	Intake Non-carcinogenic Central Tendency using 95% UCL Mytilusius edulis mussel indigenous	Intake Non-carcinogenic Central Tendency using average Mytilusius edulis mussel indigenous	Intake Non-carcinogenic High End using Maximum concentration Mytilus edulis mussel indigenous	Intake Non-Carcinogenic High End using 95% UCL Mytilusius edulis mussel indigenous
	mg/kg/day	mg/kg/day		mg/kg/day	mg/kg/day
Aluminum	3.78E-02	3.97E-02	1.78E-02	6.41E-02	6.41E-02
Silver	5.10E-05	4.68E-05	1.72E-05	8.66E-05	7.94E-05
10% of total Arsenic	7.85E-05	5.86E-05	5.86E-05	1.33E-04	1.33E-04
Cadmium	3.06E-04	3.31E-04	1.53E-04	5.19E-04	5.19E-04
assume Chromium III	3.90E-04	8.02E-04	2.96E-04	6.61E-04	6.61E-04
assume Chromium IV	3.90E-04	8.02E-04	2.96E-04	6.61E-04	6.61E-04
Copper	1.09E-03	1.19E-03	6.57E-04	1.85E-03	1.85E-03
Iron	8.71E-02	4.48E-01	5.92E-02	1.48E-01	7.59E-01
Manganese	2.69E-02	1.04E-04	5.86E-04	4.56E-02	1.77E-04
Nickle	2.43E-04	4.76E-04	1.71E-04	4.13E-04	8.07E-04
Lead	4.70E-04	4.10E-04	1.77E-04	7.98E-04	6.95E-04
Zinc	6.51E-03	5.27E-03	5.27E-03	1.10E-02	1.10E-02
Mercury (Total)	4.32E-05	2.45E-05		7.32E-05	4.15E-05
Methyl-Mercury (no value)					
Fluorene	1.84E-06	1.29E-06	1.05E-06	3.12E-06	2.18E-06
Phenanthrene	7.24E-06	3.79E-06	2.40E-06	1.23E-05	6.43E-06
Anthracene	2.46E-06	1.60E-06	1.31E-06	4.16E-06	2.71E-06
C1-phenanthrene + anthracene	6.27E-06	4.28E-06	3.34E-06	1.06E-05	7.26E-06
C2-phenanthrene + anthracene	1.67E-05	8.46E-06	5.28E-06	2.83E-05	1.44E-05
C3-phenanthrene + anthracene	1.86E-05	9.05E-06	5.46E-06	3.15E-05	1.54E-05
C4-phenanthrene + anthracene	2.73E-05	1.32E-05	7.49E-06	4.63E-05	2.24E-05
Sum C1:C4-phenanthrene + anthracene	6.88E-05	3.50E-05	2.16E-05	1.17E-04	5.93E-05
Fluoranthene	1.25E-05	8.78E-06	6.02E-06	2.12E-05	1.49E-05
Pyrene (95UCL>max)	1.87E-05	1.87E-05	6.15E-06	3.18E-05	3.18E-05
Benz(a)anthracene	6.00E-06	3.58E-06	2.40E-06	1.02E-05	6.07E-06
Chrysene	8.30E-06	5.02E-06	3.19E-06	1.41E-05	8.51E-06
Sum of benzofluoranthenes as benzo(b) fluoranthene					
Benzo(e)pyrene	1.43E-05	6.63E-06	3.85E-06	2.42E-05	1.12E-05
Benzo(a)pyrene	4.98E-06	2.90E-06	1.88E-06	8.45E-06	4.91E-06
Perylene	3.03E-06	1.78E-06	1.23E-06	5.13E-06	3.01E-06
Indeno(1,2,3-cd)pyrene	3.03E-06	2.62E-06	2.00E-06	5.13E-06	4.44E-06
Dibenz(a,h)anthracene	1.30E-06	1.29E-06	1.28E-06	2.20E-06	2.19E-06
Benzo(g,h,i)perylene	4.44E-06	2.63E-06	1.93E-06	7.54E-06	4.46E-06
Sum of measured PAHs	1.42E-04	8.22E-05	5.62E-05	2.41E-04	1.39E-04
Sum of Congeners.	4.69E-06	3.05E-06	1.59E-06	7.96E-06	5.18E-06
Hexachlorobenzene	3.19E-07	3.15E-07	3.11E-07	5.40E-07	5.34E-07
Lindane (gamma-BHC)	5.37E-08	5.29E-08	5.21E-08	9.10E-08	8.96E-08
Alpha-chlordane as chlorodane	2.76E-08	2.76E-08	2.73E-08	4.68E-08	4.68E-08
Trans-nonachlor	1.46E-07	7.64E-08	4.34E-08	2.47E-07	1.30E-07
Heptachlor					
Heptachlor epoxide	1.09E-07	1.07E-07	1.06E-07	1.84E-07	1.82E-07
Mirex	2.68E-08	2.64E-08	2.61E-08	4.54E-08	4.47E-08
o,p -DDD	1.16E-06	5.49E-07	2.55E-07	1.97E-06	9.31E-07
p,p -DDD	3.92E-07	3.04E-07	2.06E-07	6.65E-07	5.16E-07
o,p -DDE	3.06E-08	2.99E-08	2.94E-08	5.18E-08	5.07E-08
p,p -DDE	1.50E-06	9.69E-07	5.39E-07	2.54E-06	1.64E-06
o,p -DDT	9.71E-08	9.58E-08	9.46E-08	1.65E-07	1.62E-07
p,p -DDT	1.42E-06	9.92E-07	5.67E-07	2.41E-06	1.68E-06
Aldrin	4.01E-08	3.97E-08	3.93E-08	6.80E-08	6.73E-08

PHASE II REFERENCE LOCA NS TABLE 4-2D INTAKES FLOUNDER ET FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Carcinogenic Central Tendency using 95% UCL concentration Pseudo-pleuronectes americanus filet flounder flesh	Intake Carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	2.81E-05	2.74E-05	1.59E-04	1.55E-04
Silver	1.64E-06	1.93E-06	9.27E-06	1.09E-05
10% of total Arsenic	5.78E-05	5.34E-05	3.27E-04	3.02E-04
Cadmium	2.34E-07	2.17E-07	1.33E-06	1.23E-06
assume Chromium III	4.10E-06	3.70E-06	2.32E-05	2.09E-05
assume Chromium IV	4.10E-06	3.70E-06	2.32E-05	2.09E-05
Copper	4.48E-06	3.83E-06	2.53E-05	2.17E-05
Iron	7.04E-05	6.98E-05	3.98E-04	3.95E-04
Manganese	1.41E-06	1.38E-06	7.95E-06	7.78E-06
Nickle	2.44E-05	2.25E-05	1.38E-04	1.27E-04
Lead	1.09E-06	1.00E-06	6.18E-06	5.67E-06
Zinc	1.44E-04	1.40E-04	8.13E-04	7.92E-04
Mercury (Total)	5.47E-06	5.06E-06	3.09E-05	2.86E-05
Methyl-Mercury	4.03E-06	2.93E-06	2.28E-05	2.28E-05
Fluorene	1.51E-08	1.36E-08	8.55E-08	7.69E-08
Phenanthrene	3.23E-08	3.19E-08	1.83E-07	1.81E-07
Anthracene	3.34E-08	2.54E-08	1.89E-07	1.89E-07
C1-phenanthrene + anthracene	3.52E-08	3.16E-08	1.99E-07	1.78E-07
C2-phenanthrene + anthracene	2.08E-08	1.97E-08	1.18E-07	1.12E-07
C3-phenanthrene + anthracene	2.98E-08	2.98E-08	1.69E-07	1.69E-07
C4-phenanthrene + anthracene	5.65E-08	4.87E-08	3.20E-07	2.76E-07
Sum C1:C4-phenanthrene + anthracene	1.42E-07	1.30E-07	8.05E-07	7.34E-07
Fluoranthene	1.23E-08	1.22E-08	6.98E-08	6.90E-08
Pyrene	3.13E-08	2.88E-08	1.77E-07	1.63E-07
Benz(a)anthracene	3.16E-08	3.07E-08	1.79E-07	1.74E-07
Chrysene	3.16E-08	3.07E-08	1.79E-07	1.74E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	1.20E-08	1.22E-08	6.80E-08	6.88E-08
Benzo(e)pyrene	1.09E-08	1.07E-08	6.15E-08	6.06E-08
Benzo(a)pyrene	1.00E-08	8.65E-09	5.66E-08	4.89E-08
Perylene	5.80E-08	5.18E-08	3.28E-07	2.93E-07
Indeno(1,2,3-cd)pyrene	3.47E-09	3.52E-09	1.96E-08	1.99E-08
Dibenz(a,h)anthracene	6.75E-08	4.01E-08	3.82E-07	3.82E-07
Benzo(g,h,i)perylene	3.00E-09	2.85E-09	1.70E-08	1.70E-08
Sum of measured PAHs	2.40E-07	2.35E-07	1.36E-06	1.33E-06
Sum of Congeners.	2.77E-06	2.07E-06	1.57E-05	1.17E-05
Hexachlorobenzene	8.72E-09	8.32E-09	4.93E-08	4.71E-08
Lindane (gamma-BHC)	1.27E-08	9.33E-09	7.21E-08	5.28E-08
Alpha-chlordane as chlorodane	2.07E-08	1.80E-08	1.17E-07	1.02E-07
Trans-nonachlor	4.30E-08	3.56E-08	2.43E-07	2.01E-07
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	2.85E-08	2.58E-08	1.61E-07	1.46E-07
o,p -DDE				
p,p -DDE	4.46E-07	3.18E-07	2.52E-06	1.80E-06
o,p -DDT				
p,p -DDT	9.63E-09	9.91E-09	5.45E-08	5.61E-08
Aldrin				

PHASE II REFERENCE LOCA ›NS TABLE 4-2D INTAKES FLOUNDER . ET FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Non-carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Non-carcinogenic Central Tendency using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh	Intake Non-carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Non-carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	2.18E-04	2.13E-04	3.70E-04	3.62E-04
Silver	1.27E-05	1.50E-05	2.16E-05	2.55E-05
10% of total Arsenic	4.49E-04	4.15E-04	7.62E-04	7.04E-04
Cadmium	1.82E-06	1.69E-06	3.09E-06	2.87E-06
assume Chromium III	3.19E-05	2.88E-05	5.41E-05	4.88E-05
assume Chromium IV	3.19E-05	2.88E-05	5.41E-05	4.88E-05
Copper	3.48E-05	2.98E-05	5.91E-05	5.05E-05
Iron	5.48E-04	5.43E-04	9.29E-04	9.21E-04
Manganese	1.09E-05	1.07E-05	1.85E-05	1.81E-05
Nickle	1.90E-04	1.75E-04	3.22E-04	2.97E-04
Lead	8.50E-06	7.79E-06	1.44E-05	1.32E-05
Zinc	1.12E-03	1.09E-03	1.90E-03	1.85E-03
Mercury (Total)	4.25E-05	3.94E-05	7.21E-05	6.68E-05
Methyl-Mercury	3.13E-05	2.28E-05	5.31E-05	5.31E-05
Fluorene	1.18E-07	1.06E-07	1.99E-07	1.79E-07
Phenanthrene	2.51E-07	2.48E-07	4.26E-07	4.21E-07
Anthracene	2.60E-07	1.97E-07	4.40E-07	4.40E-07
C1-phenanthrene + anthracene	2.73E-07	2.45E-07	4.64E-07	4.16E-07
C2-phenanthrene + anthracene	1.62E-07	1.53E-07	2.74E-07	2.60E-07
C3-phenanthrene + anthracene	2.32E-07	2.32E-07	3.93E-07	3.93E-07
C4-phenanthrene + anthracene	4.39E-07	3.79E-07	7.45E-07	6.42E-07
Sum C1:C4-phenanthrene + anthracene	1.11E-06	1.01E-06	1.88E-06	1.71E-06
Fluoranthene	9.60E-08	9.49E-08	1.63E-07	1.61E-07
Pyrene	2.43E-07	2.24E-07	4.13E-07	3.79E-07
Benz(a)anthracene	2.46E-07	2.39E-07	4.17E-07	4.05E-07
Chrysene	2.46E-07	2.39E-07	4.17E-07	4.05E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	9.34E-08	9.46E-08	1.58E-07	1.60E-07
Benzo(e)pyrene	8.45E-08	8.33E-08	1.43E-07	1.41E-07
Benzo(a)pyrene	7.78E-08	6.73E-08	1.32E-07	1.14E-07
Perylene	4.51E-07	4.02E-07	7.65E-07	6.83E-07
Indeno(1,2,3-cd)pyrene	2.70E-08	2.74E-08	4.58E-08	4.64E-08
Dibenz(a,h)anthracene	5.25E-07	3.12E-07	8.90E-07	8.90E-07
Benzo(g,h,i)perylene	2.33E-08	2.22E-08	3.96E-08	3.76E-08
Sum of measured PAHs	1.87E-06	1.83E-06	3.16E-06	3.10E-06
Sum of Congeners.	2.15E-05	1.61E-05	3.65E-05	2.72E-05
Hexachlorobenzene	6.78E-08	6.47E-08	1.15E-07	1.10E-07
Lindane (gamma-BHC)	9.91E-08	7.25E-08	1.68E-07	1.23E-07
Alpha-chlordane as chlorodane	1.61E-07	1.40E-07	2.73E-07	2.38E-07
Trans-nonachlor	3.34E-07	2.77E-07	5.67E-07	4.69E-07
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	2.22E-07	2.01E-07	3.76E-07	3.41E-07
o,p -DDE				
p,p -DDE	3.47E-06	2.47E-06	5.88E-06	4.19E-06
o,p -DDT				
p,p -DDT	7.49E-08	7.71E-08	1.27E-07	1.31E-07
Aldrin				

PHASE II REFERENCE LOCATIONS TABLE 4-2E SEAFOOD INTAKES FLOUNDER LIVER FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Intake Carcinogenic Central Tendency using 95% UCL concentration Pseudo-pleuronectes americanus Liver flounder Liver	Intake Carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus Liver flounder Liver	Intake Carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	8.93465E-05	8.71817E-05	0.000298711	0.000298711
Silver	8.64929E-05	7.13066E-05	0.00028917	0.00028917
10% of total Arsenic	2.95198E-05	2.3747E-05	9.86929E-05	9.86929E-05
Cadmium	4.10325E-05	3.40789E-05	0.000137183	0.000137183
assume Chromium III	3.93597E-06	3.87037E-06	1.31591E-05	1.31591E-05
assume Chromium VI	3.93597E-06	3.87037E-06	1.31591E-05	1.31591E-05
Copper	0.001033192	0.000760298	0.003454253	0.003454253
Iron	0.011670147	0.01125031	0.039016611	0.039016611
Manganese	0.000102335	8.87889E-05	0.000342136	0.000342136
Nickle	5.94331E-05	4.29677E-05	0.000198702	0.000198702
Lead	2.90278E-05	2.80766E-05	9.70481E-05	9.70481E-05
Zinc	0.00129887	0.00128247	0.00434249	0.00434249
Mercury (inorganic)	2.08075E-06	2.03093E-06	6.95654E-06	6.95654E-06
Methyl-Mercury	1.02183E-06	7.90518E-07	3.41628E-06	3.41628E-06
Fluorene	2.24028E-08	2.14245E-08	7.48988E-08	7.48988E-08
Phenanthrene	7.96325E-08	7.05345E-08	2.66234E-07	2.66234E-07
Anthracene	2.78812E-08	2.24028E-08	9.32147E-08	9.32147E-08
C1-phenanthrene + anthracene	1.3109E-07	7.75129E-08	4.38272E-07	4.38272E-07
C2-phenanthrene + anthracene	7.55237E-08	6.0132E-08	2.52497E-07	2.52497E-07
C3-phenanthrene + anthracene	1.15438E-07	7.14149E-08	3.85941E-07	3.85941E-07
C4-phenanthrene + anthracene	9.70461E-08	6.473E-08	3.24452E-07	3.24452E-07
Sum C1:C4-phenanthrene + anthracene	4.19098E-07	2.7379E-07	1.40116E-06	1.40116E-06
Fluoranthene	2.61203E-08	2.3968E-08	8.73274E-08	8.73274E-08
Pyrene	5.60558E-08	5.01209E-08	1.87411E-07	1.87411E-07
Benz(a)anthracene	2.64137E-08	2.64137E-08	8.83086E-08	8.83086E-08
Chrysene	2.64137E-08	2.64137E-08	8.83086E-08	8.83086E-08
Sum of benzofluoranthenes as benzo(b) fluoranthene	3.63923E-08	3.06856E-08	1.2167E-07	1.2167E-07
Benzo(e)pyrene	4.58817E-08	3.46966E-08	1.53395E-07	1.53395E-07
Benzo(a)pyrene	4.45121E-08	1.82157E-08	1.48816E-07	1.48816E-07
Perylene	4.84252E-08	3.93271E-08	1.61899E-07	1.61899E-07
Indeno(1,2,3-cd)pyrene	4.40229E-08	3.00497E-08	1.47181E-07	1.47181E-07
Dibenz(a,h)anthracene	1.73157E-09	1.51308E-09	5.78912E-09	5.78912E-09
Benzo(g,h,i)perylene	5.82081E-08	7.45439E-10	1.94606E-07	1.94606E-07
Sum of measured PAHs	1.40804E-07	1.37971E-07	4.70748E-07	4.61276E-07
Sum of PCB Congeners.	2.92266E-05	2.71733E-05	9.77129E-05	9.77129E-05
Hexachlorobenzene	5.88929E-08	4.7773E-08	1.96896E-07	1.96896E-07
Lindane (gamma-BHC)	2.20115E-09	2.20115E-09	7.35905E-09	7.35905E-09
Alpha-chlordane as chlorodane	1.79026E-07	1.487E-07	5.98536E-07	5.98536E-07
Trans-nonachlor	3.44357E-07	2.98051E-07	1.15128E-06	1.15128E-06
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	3.39466E-07	2.9903E-07	1.13493E-06	1.26084E-06
o,p -DDE				
p,p -DDE	1.41852E-06	1.31417E-06	4.7425E-06	5.00099E-06
o,p -DDT				
p,p -DDT	1.61417E-07	1.26851E-07	5.39664E-07	5.97182E-07
Aldrin				

PHASE II REFERENCE LOCATIONS TABLE 4-2E SEAFOOD INTAKES FLOUNDER LIVER FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Non-carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Intake Non-carcinogenic Central Tendency using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver	Intake Non-carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Intake Non-carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	0.000693435	0.000676634	0.000693435	0.000693435
Silver	0.000671288	0.000553425	0.000671288	0.000731146
10% of total Arsenic	0.000229109	0.000184305	0.000229109	0.000229109
Cadmium	0.000318461	0.000264493	0.000318461	0.000318461
assume Chromium III	3.05478E-05	3.00387E-05	3.05478E-05	3.15253E-05
assume Chromium VI	3.05478E-05	3.00387E-05	3.05478E-05	3.05478E-05
Copper	0.008018802	0.00590082	0.008018802	0.008018802
Iron	0.090574276	0.087315842	0.090574276	0.090574276
Manganese	0.000794243	0.000689108	0.000794243	0.000794243
Nickle	0.000461272	0.00033348	0.000461272	0.000461272
Lead	0.00022529	0.000217908	0.00022529	0.00022529
Zinc	0.010080779	0.009953497	0.010080779	0.010080779
Mercury (Inorganic)	1.61491E-05	1.57624E-05	1.61491E-05	1.61491E-05
Methyl-Mercury	7.93065E-06	6.13536E-06	7.93065E-06	7.93065E-06
Fluorene	1.73872E-07	1.6628E-07	1.73872E-07	1.73872E-07
Phenanthrene	6.18044E-07	5.47432E-07	6.18044E-07	6.18044E-07
Anthracene	2.16391E-07	1.73872E-07	2.16391E-07	2.16391E-07
C1-phenanthrene + anthracene	1.01742E-06	6.01593E-07	1.01742E-06	1.21537E-06
C2-phenanthrene + anthracene	5.86154E-07	4.66696E-07	5.86154E-07	6.58846E-07
C3-phenanthrene + anthracene	8.95936E-07	5.54265E-07	8.95936E-07	1.07853E-06
C4-phenanthrene + anthracene	7.53193E-07	5.02382E-07	7.53193E-07	8.71069E-07
Sum C1:C4-phenanthrene + anthracene	3.2527E-06	2.12494E-06	3.2527E-06	3.82381E-06
Fluoranthene	2.02724E-07	1.86021E-07	2.02724E-07	2.11234E-07
Pyrene	4.3506E-07	3.88998E-07	4.3506E-07	4.56298E-07
Benz(a)anthracene	2.05002E-07	2.05002E-07	2.05002E-07	2.05002E-07
Chrysene	2.05002E-07	2.05002E-07	2.05002E-07	2.05002E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	2.82447E-07	2.38157E-07	2.82447E-07	3.15747E-07
Benzo(e)pyrene	3.56096E-07	2.69287E-07	3.56096E-07	3.56096E-07
Benzo(a)pyrene	3.45467E-07	1.41376E-07	3.45467E-07	3.45467E-07
Perylene	3.75837E-07	3.05225E-07	3.75837E-07	3.75837E-07
Indeno(1,2,3-cd)pyrene	3.4167E-07	2.33222E-07	3.4167E-07	5.49892E-07
Dibenz(a,h)anthracene	1.3439E-08	1.17433E-08	1.3439E-08	1.54451E-08
Benzo(g,h,i)perylene	4.51764E-07	5.78549E-09	4.51764E-07	7.33118E-07
Sum of measured PAHs	1.09281E-06	1.07082E-06	1.09281E-06	1.07082E-06
Sum of PCB Congeners.	0.000226834	0.000210897	0.000226834	0.000226834
Hexachlorobenzene	4.57079E-07	3.70776E-07	4.57079E-07	5.05612E-07
Lindane (gamma-BHC)	1.70835E-08	1.70835E-08	1.70835E-08	1.70835E-08
Alpha-chlordane as chlorodane	1.38946E-06	1.15409E-06	1.38946E-06	1.38946E-06
Trans-nonachlor	2.67262E-06	2.31323E-06	2.67262E-06	2.67262E-06
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	2.63466E-06	2.92696E-06	2.63466E-06	2.92696E-06
o,p -DDE				
p,p -DDE	1.10094E-05	1.16095E-05	1.10094E-05	1.16095E-05
o,p -DDT				
p,p -DDT	1.25279E-06	1.38632E-06	1.25279E-06	1.38632E-06
Aldrin				

PHASE II REFERENCE LOCATIONS TABLE 5-1A ESTIMATED CANCER AND NON-CANCER RISK FOR MEAT FROM LOBSTER TAIL AND CLAW

Chemical of Potential Concern	Carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Carcinogenic High End Estimated Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Carcinogenic High End Estimate Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	2.52E-06	2.41E-06	7.28E-05	6.95E-05
Cadmium				
assume Chromium III				
assume Chromium IV				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (inorganic)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	8.49E-09	5.41E-09	2.45E-07	1.56E-07
Chrysene	1.28E-10	8.30E-11	3.71E-09	2.40E-09
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	1.14E-07	7.23E-08	3.28E-06	2.09E-06
Perylene				
Indeno(1,2,3-cd)pyrene	7.32E-09	4.77E-09	2.11E-07	1.38E-07
Dibenz(a,h)anthracene	7.20E-09	7.47E-09	2.08E-07	2.16E-07
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of Congeners.	1.03E-07	9.43E-08	2.99E-06	2.72E-06
Hexachlorobenzene	4.03E-10	3.60E-10	1.16E-08	1.04E-08
Lindane (gamma-BHC)	1.61E-09	1.34E-09	4.65E-08	3.88E-08
Alpha-chlordane as chlorodane	2.47E-10	2.35E-10	7.13E-09	6.78E-09
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	1.19E-10	1.10E-10	3.43E-09	3.19E-09
o,p -DDE				
p,p -DDE	7.01E-10	6.74E-10	2.02E-08	1.95E-08
o,p -DDT				
p,p -DDT	7.83E-11	7.87E-11	2.26E-09	2.27E-09
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	2.76E-06	2.59E-06	7.99E-05	7.49E-05

PHASE II REFERENCE LOCATIONS TABLE 5-1A ESTIMATED CANCER AND NON-CANCER RISK FOR MEAT FROM LOBSTER TAIL AND CLAW

Chemical of Potential Concern	Non-carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Non-carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Non-carcinogenic High End Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Non-carcinogenic High End Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	Intake/RfD	Intake/Rfd	Intake/Rfd	Intake/Rfd
Aluminum	8.35E-06	8.37E-06	7.23E-05	7.24E-05
Silver	7.16E-04	6.12E-04	6.20E-03	5.30E-03
10% of total Arsenic	4.35E-02	4.16E-02	3.77E-01	3.60E-01
Cadmium	1.51E-04	1.43E-04	1.30E-03	1.24E-03
assume Chromium III	*	*	*	*
assume Chromium IV				
Copper	3.34E-03	3.23E-03	2.89E-02	2.79E-02
Iron				
Manganese	4.08E-05	3.44E-05	3.53E-04	2.98E-04
Nickle	4.61E-05	4.60E-05	3.99E-04	3.98E-04
Lead				
Zinc	2.13E-03	2.09E-03	1.85E-02	1.81E-02
Mercury (inorganic)	2.40E-02	1.56E-02	2.08E-01	1.35E-01
Methyl-Mercury	6.77E-02	4.51E-02	5.86E-01	5.86E-01
Fluorene	2.15E-07	1.79E-07	1.86E-06	1.55E-06
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	1.93E-05	1.23E-05	1.67E-04	1.07E-04
Pyrene	2.78E-05	1.92E-05	2.40E-04	1.67E-04
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene	2.03E-05	1.51E-05	1.76E-04	1.31E-04
Sum of measured PAHs				
Sum of Congeners.				
Hexachlorobenzene	2.45E-06	2.18E-06	2.12E-05	1.89E-05
Lindane (gamma-BHC)	3.21E-05	2.68E-05	2.77E-04	2.32E-04
Alpha-chlordane as chlorodane	2.46E-05	2.34E-05	2.13E-04	2.02E-04
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	3.58E-06	3.59E-06	3.10E-05	3.11E-05
Aldrin				
	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ
	0.141839	0.108468	1.227576	1.134790

PHASE II REFERENCE LOCATIONS TABLE 5-1B ESTIMATED CANCER AND NON-CANCER RISK FOR BSTER HEPATOPANCREAS (TOMALLE

Chemical of Potential Concern	Carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic High End Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic High End Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	9.85E-07	8.99E-07	2.85E-05	2.60E-05
Cadmium				
assume Chromium III				
assume Chromium IV				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (inorganic)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	1.41E-09	1.32E-09	4.08E-08	3.81E-08
Chrysene	6.10E-11	5.52E-11	1.76E-09	1.60E-09
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	3.27E-08	3.05E-08	9.45E-07	8.83E-07
Perylene				
Indeno(1,2,3-cd)pyrene	2.69E-09	1.94E-09	7.79E-08	5.61E-08
Dibenz(a,h)anthracene	5.96E-09	4.59E-09	1.72E-07	1.33E-07
Benzo(g,h,i)perylene				
Sum of messured PAHs				
Sum of Congeners.	2.64E-06	2.43E-06	7.64E-05	7.04E-05
Hexachlorobenzene	3.80E-09	3.24E-09	1.10E-07	9.36E-08
Lindane (gamma-BHC)				
Alpha-chlordane as chlorodane	4.03E-09	3.44E-09	1.17E-07	9.96E-08
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	2.88E-09	2.29E-09	8.33E-08	6.62E-08
o,p -DDE				
p,p -DDE	5.55E-08	5.08E-08	1.60E-06	1.47E-06
o,p -DDT				
p,p -DDT	1.20E-09	9.20E-10	3.47E-08	2.66E-08
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	3.74E-06	3.43E-06	1.08E-04	9.93E-05

PHASE II REFERENCE LOCA"IONS TABLE 5-1B ESTIMATED CANCER "ND NON-CANCER RISK FOR BSTER HEPATOPANCREAS (TOMALLE

Chemical of Potential Concern	Non-carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic High End Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic High End Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	Intake/RfD	Intake/Rfd	Intake/RfD	Intake/Rfd
Aluminum	0.000006	0.000005	0.000049	0.000043
Silver	0.000264	0.000281	0.002295	0.002435
10% of total Arsenic	0.017000	0.015520	0.147508	0.134665
Cadmium	0.061199	0.055939	0.531027	0.485386
assume Chromium III	*	*	*	*
assume Chromium IV				
Copper	0.014332	0.013349	0.124364	0.115831
Iron				
Manganese	0.000090	0.000071	0.000778	0.000778
Nickle	0.000324	0.000290	0.002815	0.002520
Lead				
Zinc	0.000569	0.000527	0.004937	0.004569
Mercury (inorganic)	0.001888	0.001701	0.016378	0.014758
Methyl-Mercury	0.002373	0.001794	0.020595	0.020595
Fluorene	0.000001	0.000001	0.000007	0.000006
Phenanthrene	0.000038	0.000029	0.000333	0.000253
Anthracene	0.000000	0.000000	0.000000	0.000000
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	0.000007	0.000006	0.000065	0.000053
Pyrene	0.000004	0.000003	0.000034	0.000026
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of Congeners.				
Hexachlorobenzene	0.000023	0.000020	0.000200	0.000171
Lindane (gamma-BHC)	0.000034	0.000032	0.000298	0.000281
Alpha-chlordane as chlorodane	0.000402	0.000343	0.003484	0.002976
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	0.000055	0.000042	0.000476	0.000365
Aldrin				
	Non-cancer risk Hazard Quotent	Non-cancer risk Hazard Quotent	Non-cancer risk Hazard Quotent	Non-cancer risk Hazard Quotent
	0.098609	0.089951	0.855644	0.785710

PHASE II REFERENCE LOC. ONS TABLE 5-1C ESTIMATED CANCER D NON-CANCER RISK FOR MUSSELS

Chemical of Potential Concern	Estimated Carcinogenic Risk for Central Tendency using Maximum concentration Mytilus edulis mussel indigenous	Estimated Carcinogenic Risk for Central Tendency using 95% UCL Mytilusius edulis mussel indigenous	Estimated Carcinogenic Risk for High End Assumtions Using Maximum Concentration Mytilus edulis mussel indigenous	Estimated Carcinogenic Risk for High End Assumtions using 95% UCL Mytilusius edulis mussel indigenous
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	1.51E-05	1.13E-05	8.57E-05	8.57E-05
Cadmium				
assume Chromium III				
assume Chromium IV				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (Total)				
Methyl-Mercury (no value)				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene (95UCL>max)				
Benz(a)anthracene	5.63E-07	3.36E-07	3.19E-06	1.90E-06
Chrysene	7.79E-09	4.71E-09	4.41E-08	2.67E-08
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	4.68E-06	2.72E-06	2.65E-05	1.54E-05
Perylene				
Indeno(1,2,3-cd)pyrene	2.84E-07	2.46E-07	1.61E-06	1.39E-06
Dibenz(a,h)anthracene	1.22E-06	1.21E-06	6.89E-06	6.87E-06
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of Congeners.	4.65E-06	3.02E-06	2.63E-05	1.71E-05
Hexachlorobenzene	6.56E-08	6.47E-08	3.71E-07	3.66E-07
Lindane (gamma-BHC)	8.97E-09	8.84E-09	5.08E-08	5.00E-08
Alpha-chlordane as chlorodane	4.62E-09	4.62E-09	2.61E-08	2.61E-08
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide	1.27E-07	1.25E-07	7.20E-07	7.09E-07
Mirex				
o,p -DDD				
p,p -DDD	1.21E-08	9.40E-09	6.85E-08	5.32E-08
o,p -DDE				
p,p -DDE	6.55E-08	4.24E-08	3.70E-07	2.40E-07
o,p -DDT				
p,p -DDT	6.21E-08	4.34E-08	3.51E-07	2.45E-07
Aldrin	8.76E-08	8.68E-08	4.96E-07	4.91E-07
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	2.70E-05	1.92E-05	1.53E-04	1.31E-04

PHASE II REFERENCE LOC. .ONS TABLE 5-1C ESTIMATED CANCER . ..ID NON-CANCER RISK FOR MUSSELS

Chemical of Potential Concern	Estimated Non-Carcinogenic Risk for Central Tendency using Maximum concentration Mytilus edulis mussel indigenous	Estimated Non-Carcinogenic Central Tendency using 95% UCL Mytilusius edulis mussel indigenous	Estimated Non-carcinogenic Risk for High End using Maximum concentration Mytilus edulis mussel indigenous	Estimated Non-Carcinogenic Risk for High End assumptions using 95% UCL Mytilusius edulis mussel indigenous
	Intake/RfD	Intake/Rfd	Intake/RfD	Intake/Rfd
Aluminum	0.037800	0.017801	0.064107	0.064107
Silver	0.010210	0.009368	0.017315	0.015897
10% of total Arsenic	0.261664	0.195479	0.443768	0.443768
Cadmium	0.612294	0.306119	1.038417	1.038417
assume Chromium III	*	*	*	*
assume Chromium IV				
Copper	0.027324	0.013913	0.046340	0.046340
Iron				
Manganese	0.191935	0.000744	0.325511	0.001262
Nickle	0.012162	0.023787	0.020625	0.040341
Lead				
Zinc	0.021685	0.017580	0.036777	0.036777
Mercury (Total)	0.143856	0.081595	0.243972	0.138380
Methyl-Mercury (no value)				
Fluorene	0.000046	0.000032	0.000078	0.000055
Phenanthrene	0.001809	0.000948	0.003068	0.001608
Anthracene	0.000008	0.000005	0.000014	0.000009
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	0.000312	0.000219	0.000530	0.000372
Pyrene (95UCL>max)	0.000625	0.000205	0.001060	0.001060
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene	0.001111	0.000657	0.001884	0.001114
Sum of measured PAHs				
Sum of Congeners.				
Hexachlorobenzene	0.000398	0.000393	0.000675	0.000667
Lindane (gamma-BHC)	0.000179	0.000176	0.000303	0.000299
Alpha-chlordane as chlorodane	0.000460	0.000460	0.000780	0.000780
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide	0.008361	0.008243	0.014180	0.013980
Mirex	0.000134	0.000132	0.000227	0.000224
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	0.002839	0.001983	0.004815	0.003364
Aldrin	0.001336	0.001323	0.002266	0.002244
	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ	Non-cancer risk Hazard Quotent not adjusted for target organ
	1.336548	0.681164	2.266713	1.851053

PHASE II REFERENCE LOCATIO TABLE 5-1D ESTIMATED CANCER AND N -CANCER RISK FOR FLOUNDER FILET

Chemical of Potential Concern	Estimated Carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Estimated Carcinogenic Risk for Central Tendency using 95% UCL concentration Pseudo-pleuronectes americanus filet flounder flesh	Estimated Carcinogenic Risk for High End assumptions using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Estimated Carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	8.67E-05	8.00E-05	4.90E-04	4.53E-04
Cadmium				
assume Chromium III				
assume Chromium IV				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (Total)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	2.31E-08	2.24E-08	1.31E-07	1.27E-07
Chrysene	2.31E-10	2.24E-10	1.31E-09	1.27E-09
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	7.30E-08	6.32E-08	4.13E-07	3.57E-07
Perylene				
Indeno(1,2,3-cd)pyrene	2.54E-09	2.57E-09	1.43E-08	1.45E-08
Dibenz(a,h)anthracene	4.93E-07	2.93E-07	2.79E-06	2.79E-06
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of Congeners.	2.13E-05	1.59E-05	1.21E-04	9.00E-05
Hexachlorobenzene	1.39E-08	1.33E-08	7.89E-08	7.53E-08
Lindane (gamma-BHC)	1.66E-08	1.21E-08	9.37E-08	6.86E-08
Alpha-chlordane as chlorodane	2.69E-08	2.35E-08	1.52E-07	1.33E-07
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	6.85E-09	6.20E-09	3.87E-08	3.51E-08
o,p -DDE				
p,p -DDE	1.52E-07	1.08E-07	8.58E-07	6.12E-07
o,p -DDT				
p,p -DDT	3.28E-09	3.37E-09	1.85E-08	1.91E-08
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	1.09E-04	9.65E-05	6.16E-04	5.47E-04

PHASE II REFERENCE LOCATION TABLE 5-1D ESTIMATED CANCER AND NON-CANCER RISK FOR FLOUNDER FILET

Chemical of Potential Concern	Estimated Non-carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo-pleuronectes americanus fillet flounder flesh	Estimated Non-carcinogenic Risk for Central Tendency assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus fillet flounder flesh	Estimated Non-carcinogenic Risk for High End assumptions using Maximum Concentration for Pseudo-pleuronectes americanus fillet flounder flesh	Estimated Non-carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus fillet flounder flesh
	Hazard Quotient Intake/RfD	Hazard Quotient Intake/RfD	Hazard Quotient Intake/RfD	Hazard Quotient Intake/RfD
Aluminum	2.18E-04	2.13E-04	3.70E-04	3.62E-04
Silver	2.55E-03	3.01E-03	4.32E-03	5.10E-03
10% of total Arsenic	1.50E+00	1.38E+00	2.54E+00	2.35E+00
Cadmium	3.64E-03	3.38E-03	6.18E-03	5.73E-03
assume Chromium III				
assume Chromium IV				
Copper	8.71E-04	7.44E-04	1.48E-03	1.26E-03
Iron				
Manganese	7.81E-05	7.64E-05	1.32E-04	1.30E-04
Nickle	9.50E-03	8.75E-03	1.61E-02	1.48E-02
Lead				
Zinc	3.73E-03	3.63E-03	6.32E-03	6.16E-03
Mercury (Total)	1.42E-01	1.31E-01	2.40E-01	2.23E-01
Methyl-Mercury	3.13E-01	2.28E-01	5.31E-01	5.31E-01
Fluorene	2.94E-06	2.64E-06	4.98E-06	4.48E-06
Phenanthrene	6.29E-05	6.21E-05	1.07E-04	1.05E-04
Anthracene	6.66E-07	6.58E-07	1.47E-06	1.47E-06
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	2.40E-06	2.37E-06	4.07E-06	4.02E-06
Pyrene	8.11E-06	7.46E-06	1.38E-05	1.26E-05
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene	5.84E-06	5.55E-06	9.80E-06	9.41E-06
Sum of measured PAHs				
Sum of Congeners.				
Hexachlorobenzene				
Lindane (gamma-BHC)	3.30E-04	2.42E-04	5.60E-04	4.10E-04
Alpha-chlordane as chlorodane	2.68E-03	2.34E-03	4.55E-03	3.97E-03
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	1.50E-04	1.54E-04	2.54E-04	2.61E-04
Aldrin				
	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ
	1.976916	1.765042	3.352743	3.138053

PHASE II REFERENCE LOCATIONS TABLE 5-1E ESTIMATED CANCER AND NON-CANCER RISK FOR FLOUNDER LIVER FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Estimated Carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo- pleuronectes americanus liver flounder liver	Estimated Carcinogenic Risk for Central Tendency using 95% UCL concentration Pseudo- pleuronectes americanus liver flounder liver	Estimated Carcinogenic Risk for High End assumptions using Maximum Concentration for Pseudo- pleuronectes americanus liver flounder liver	Estimated Carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo- pleuronectes americanus liver flounder liver
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	4.428E-05	3.562E-05	1.480E-04	1.48E-04
Cadmium				
assume Chromium III				
assume Chromium VI				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (inorganic)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	1.9282E-08	1.9282E-08	6.44653E-08	6.44653E-08
Chrysene	1.9282E-10	1.9282E-10	6.44653E-10	6.44653E-10
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	3.24938E-07	1.32975E-07	1.08636E-06	1.08636E-06
Perylene				
Indeno(1,2,3-cd)pyrene	3.21367E-08	2.19363E-08	1.07442E-07	1.07442E-07
Dibenz(a,h)anthracene	1.26404E-08	1.10455E-08	4.22606E-08	4.22606E-08
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of PCB Congeners.	2.2505E-04	2.0923E-04	7.5239E-04	7.5239E-04
Hexachlorobenzene	9.42286E-08	7.64368E-08	3.15033E-07	3.15033E-07
Lindane (gamma-BHC)				
Alpha-chlordane as chlorodane	2.32734E-07	1.93309E-07	7.78097E-07	7.78097E-07
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	8.14717E-08	7.17671E-08	2.72383E-07	3.02603E-07
o,p -DDE				
p,p -DDE	4.82295E-07	4.46816E-07	1.61245E-06	1.70034E-06
o,p -DDT				
p,p -DDT	5.48819E-08	4.31294E-08	1.83486E-07	2.03042E-07
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	2.71E-04	2.46E-04	9.05E-04	9.05E-04

PHASE II REFERENCE LOCATIONS TABLE 5-1E ESTIMATED CANCER AND NON-CANCER RISK FOR FLOUNDER LIVER FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Estimated Non-carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Estimated Non-carcinogenic Risk for Central Tendency assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver	Estimated Non-carcinogenic Risk for High End assumptions using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Estimated Non-carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver
	Intake/RfD	Intake/Rfd	Intake/Rfd	Intake/Rfd
Aluminum	0.000693435	0.000676634	0.000693435	0.000693435
Silver	0.134257654	0.110684922	0.134257654	0.146229166
10% of total Arsenic	0.763695413	0.614350532	0.763695413	0.763695413
Cadmium	0.636921974	0.528986356	0.636921974	0.636921974
assume Chromium III	*	*	*	*
assume Chromium VI				
Copper	0.200470046	0.147520497	0.200470046	0.200470046
Iron				
Manganese	0.005673166	0.004922199	0.005673166	0.005673166
Nickle	0.023063601	0.016674017	0.023063601	0.023063601
Lead				
Zinc	0.033602598	0.033178323	0.033602598	0.033602598
Mercury (Inorganic)	0.0538304	0.05254145	0.0538304	0.0538304
Methyl-Mercury	0.0793065	0.06135363	0.0793065	0.0793065
Fluorene	4.34681E-06	4.15699E-06	4.34681E-06	4.34681E-06
Phenanthrene	0.000154511	0.000136858	0.000154511	0.000154511
Anthracene	7.21304E-07	5.79574E-07	7.21304E-07	7.21304E-07
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	5.06811E-06	4.65051E-06	5.06811E-06	5.28085E-06
Pyrene	1.4502E-05	1.29666E-05	1.4502E-05	1.52099E-05
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene	0.000112941	1.44637E-06	0.000112941	0.00018328
Sum of measured PAHs				
Sum of PCB Congeners.				
Hexachlorobenzene	0.000571349	0.000463469	0.000571349	0.000632015
Lindane (gamma-BHC)	5.69451E-05	5.69451E-05	5.69451E-05	5.69451E-05
Alpha-chlordane as chlorodane	0.023157655	0.019234774	0.023157655	0.023157655
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	0.002505582	0.002772631	0.002505582	0.002772631
Aldrin				
	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotents, not adjusted for Target Organ
	1.958098	1.593577	1.958098	1.970469

TABLE 6.0 PHASE II REFERENCE LOCATIONS
ACCEPTABLE SEAFOOD CONSUMPTION RATES

		ESTIMATED NUMBER OF MEALS		ESTIMATED NUMBER OF MEALS
MAXIMUM CONCENTRATION BASED SERVINGS PER YEAR (10^{-4} CANCER RISK)				
SEAFOOD	CENTRAL TENDENCY SERVING SIZE (oz)	Central Tendency (9 years)[1]	HIGH END SERVING SIZE (oz)	High End (30 years)[1]
Lobster (tail and claw) Meal	3.351	21.7	3.351	6.5
Lobster (TOMALLEY) Meal	0.670	16.1	0.670	4.8
Lobster (tail, claw, tomalley) Meal	4.021	9.2	4.021	2.8
Mussel Meal	8.000	18.3	8.000	5.6
Flounder Filet Meal	8.000	4.6	8.000	1.4
Flounder Liver Meal	0.670	12.9	0.670	3.9
Flounder Liver And Filet Meal	8.670	1.9	8.670	0.5
AVERAGE (95% UCL OF MEAN ASSUMING NORMAL DISTRIBUTION)			CONCENTRATION BASED SERVINGS PER YEAR (10^{-4} CANCER RISK)	
SEAFOOD	CENTRAL TENDENCY SERVING SIZE (oz)	Central Tendency (9 years)[1]	HIGH END SERVING SIZE (oz)	High End (30 years)[1]
Lobster (tail and claw) Meal	3.351	23.1	3.351	6.9
Lobster (TOMALLEY) Meal	0.670	17.5	0.670	5.2
Lobster (tail, claw, tomalley) Meal	4.021	10.0	4.021	3.0
Mussel Meal	8.000	25.7	8.000	6.5
Flounder Filet Meal	8.000	5.12	8.000	1.6
Flounder Liver Meal	0.670	3.9	0.670	3.6
Flounder Filet/Liver Meal	8.670	0.7	8.670	0.7

PHASE II SEAFOOD RISK ASSESSMENT TABLES

HARBOR AND REFERENCE LOCATIONS
PORTSMOUTH NAVAL SHIPYARD
KITTERY, MAINE

PREPARED FOR THE
NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
BY THE NAVY ENVIRONMENTAL HEALTH CENTER
NORFOLK, VIRGINIA
APRIL 1996

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TABLE 2-1 PHASE II HARBOR AND REFERENCE LOCATIONS
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	95% UCL Average * Pseudo-pleuronectes americanus filet flounder flesh	MAXIMUM Pseudo-pleuronectes americanus filet flounder flesh	95% UCL Average Pseudo-pleuronectes americanus liver flounder liver	Maximum Pseudo-pleuronectes americanus liver flounder liver	95% UCL Average Homarus americanus tail/claw Adult Lobster
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
Aluminum	0.508	0.795	2.347	2.667	0.386
Silver	0.031	0.033	*1.594*	*2.582*	0.106
10% of total Arsenic	0.552	1.012	0.549	0.881	0.375
Cadmium	0.003	0.004	0.754	1.225	0.004
assume Chromium III	0.058	0.072	0.109	0.117	0.057
assume Chromium IV	0.058	0.072	0.109	0.117	0.057
Copper	0.067	0.104	*18.341*	*30.842*	4.912
Iron	1.131	1.546	270.943	348.363	1.216
Manganese	0.023	0.025	*2.049*	*3.055*	0.261
Nickle	0.281	0.428	1.062	1.774	0.040
Lead	0.017	0.024	0.630	0.867	0.020
Zinc	3.223	3.767	35.955	38.772	24.124
Mercury (Total)	0.070	0.096	*0.060*	*0.072*	0.168
Methyl-Mercury	*0.071*	*0.071*	0.031	0.031	*0.217*
Fluorene	0.00020	0.00026	0.00107	0.00123	0.00043
Phenanthrene	0.00055	0.00059	0.00266	0.00305	0.00221
Anthracene	0.00045	0.00058	0.00083	0.00088	0.00048
C1-phenanthrene + anthracene	0.00057	0.00069	0.00249	0.00391	0.00325
C2-phenanthrene + anthracene	0.00035	0.00043	0.00265	0.00403	0.00401
C3-phenanthrene + anthracene	0.00043	0.00052	0.00360	0.00654	0.00369
C4-phenanthrene + anthracene	0.00079	0.00105	0.00297	0.00496	0.00355
Sum C1:C4-phenanthrene + anthracene	0.00213	0.00269	0.01171	0.01944	0.01449
Fluoranthene	0.00023	0.00027	0.00142	0.00223	0.01190
Pyrene	0.00049	0.00060	0.00150	0.00167	0.01520
Benz(a)anthracene	0.00056	0.00058	0.00088	0.00097	0.00184
Chrysene	0.00056	0.00059	0.00098	0.00120	0.00286
Sum of benzofluoranthenes as benzo(b) fluoranthene	0.00020	0.00022	0.00100	0.00114	0.00720
Benzo(e)pyrene	0.00017	0.00019	0.00113	0.00137	0.00241
Benzo(a)pyrene	0.00013	0.00018	0.00388	0.00968	0.00255
Perylene	0.00091	0.00107	0.00116	0.00164	0.00085
Inden (1,2,3-cd)pyrene	0.00005	0.00006	0.00127	0.00162	0.00153
Dibenz(a,h)anthracene	0.00120	0.00135	0.00109	0.00187	0.00021
Benzo(g,h,i)perylene	0.00091	0.00130	0.00183	0.00214	0.00220
Sum of measured PAHs	0.00399	0.00444	0.02381	0.03705	0.06465

TABLE 2-1 PHASE II HARBOR AND REFERENCE LOCATIONS
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	Maximum Homarus americanus tail/claw Adult Lobster	95% UCL Average* Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Maximum Homarus americanus hepatopancreas (Tomalley) Adult Lobster	95% UCL Average* Mytilus edulis mussel indigenous	Maximum Mytilus edulis mussel indigenous
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
Aluminum	0.476	2.403	7.520	84.529	164.160
Silver	0.161	0.360	0.569	0.056	0.126
10% of total Arsenic	0.586	0.702	1.143	0.164	0.209
Cadmium	0.006	5.306	9.922	0.393	0.690
assume Chromium III	0.075	0.136	0.231	5.936	15.946
assume Chromium IV	0.075	0.136	0.231	5.936	15.946
Copper	*7.244*	162.863	516.083	2.576	5.522
Iron	2.213	50.509	108.511	208.916	345.000
Manganese	0.512	2.353	2.815	39.608	164.560
Nickle	0.042	0.652	1.455	*6.633*	*18.760*
Lead	0.050	0.165	0.418	6.958	27.400
Zinc	28.698	27.333	38.272	18.832	34.544
Mercury (Total)	0.323	*0.113*	*0.256*	*0.096*	0.753
Methyl-Mercury	*0.304*	0.055	0.060		
Fluorene	0.00093	0.00829	0.01624	0.00742	0.05892
Phenanthrene	0.00464	0.05558	0.17627	0.04392	0.46854
Anthracene	0.00064	0.02203	0.08924	0.00754	0.04999
C1-phenanthrene + anthracene	0.00721	0.06664	0.20177	0.02743	0.23701
C2-phenanthrene + anthracene	0.01005	0.06286	0.16186	0.02504	0.14111
C3-phenanthrene + anthracene	0.00860	0.04239	0.10975	0.01518	0.06166
C4-phenanthrene + anthracene	0.00860	0.02025	0.03528	0.02232	0.12790
Sum C1:C4-phenanthrene + anthracene	0.03447	0.19213	0.50865	0.08997	0.56769
Fluoranthene	0.03456	0.14090	0.44399	0.07186	0.72610
Pyrene	0.03735	0.08475	0.27881	0.48772	0.48772
Benz(a)anthracene	0.00405	0.02595	0.09811	0.02448	0.23701
Chrysene	0.00613	0.04804	0.15299	0.02163	0.18221
Sum of benzofluoranthenes as benzo(b) fluoranthene	0.01776	0.07092	0.21784		
Benzo(e)pyrene	0.00479	0.03283	0.10033	0.01310	0.08138
Benzo(a)pyrene	0.00544	0.06714	0.18479	0.00888	0.07024
Perylene	0.00161	0.03750	0.06551	0.00392	0.02414
Indeno(1,2,3-cd)pyrene	0.00349	0.01271	0.04135	0.00618	0.02414
Dibenz(a,h)anthracene	0.00034	0.00264	0.00804	0.00331	0.00827
Benzo(g,h,i)perylene	0.00427	0.02042	0.06042	0.00549	0.02156
Sum of measured PAHs	0.15731	0.76126	2.35971	0.35499	2.95943

TABLE 2-1 PHASE II HARBOR AND REFERENCE LOCATIONS
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	95% UCL Average * Pseudo-pleuronectes americanus filet flounder flesh	MAXIMUM Pseudo-pleuronectes americanus filet flounder flesh	95% UCL Average Pseudo-pleuronectes americanus liver flounder liver	Maximum Pseudo-pleuronectes americanus liver flounder liver	95% UCL Average Homarus americanus tail/claw Adult Lobster
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
8 (2 4') Congener number; position of chlorines	0.00024	0.00065	0.00036	0.00046	0.00010
18 (2 2' 5)	0.00008	0.00017	0.00050	0.00057	0.29154
28 (2 4 4')	0.00015	0.00023	0.00268	0.00414	0.00016
52 (2 2' 5 5')	0.00029	0.00060	0.00323	0.00359	0.00008
44 (2 2' 3 5')	0.00006	0.00013	0.00056	0.00066	0.00003
66 (2 3' 4 4')	0.00046	0.00084	0.00820	0.01173	0.00018
101 (2 2' 4 5 5')	0.00109	0.00213	0.01589	0.01993	0.00018
PCB118	0.00239	0.00213	0.03465	0.04839	0.00075
153 (2 2' 4 4' 5 5')	0.01866	0.02860	0.12098	0.20900	0.00498
105 (2 3 3' 4 4')	0.00092	0.00186	0.01564	0.02679	0.00023
138 (2 2' 3 4 4' 5)	0.00466	0.00977	0.06774	0.08546	0.00079
187 (2 2' 3 4' 5 5' 6)	0.00174	0.00386	0.02217	0.02393	0.00036
128 (2 2' 3 3' 4 4')	0.00078	0.00157	0.01198	0.01841	0.00015
180 (2 2' 3 4 4' 5 5')	0.00231	0.00511	0.03181	0.03509	0.00036
170 (2 2' 3 3' 4 4' 5)	0.00097	0.00220	0.01370	0.01729	0.00014
195 (2 2' 3 3' 4 4' 5 6)	0.00031	0.00068	0.00458	0.00543	0.00004
206 (2 2' 3 3' 4 4' 5 5' 6)	0.00058	0.00117	0.01065	0.01378	0.00005
209 (2 2' 3 3' 4 4' 5 5' 6 6')	0.00031	0.00066	0.00348	0.00446	0.00003
Sum of PCB Congeners.	0.02282	0.04849	0.67289	0.87244	0.00467
Hexachlorobenzene	0.00011	0.00015	0.00135	0.00176	0.00007
Lindane (gamma-BHC)	0.00010	0.00022	0.00100	0.00182	0.00027
Alpha-chlordane as chlorodane	0.00028	0.00046	0.00664	0.00958	0.00006
Trans-nonachlor	0.00063	0.00108	0.01921	0.02763	0.00011
Heptachlor					
Heptachlor epoxide					
Mirex					
o,p -DDD					
p,p -DDD	0.00050	0.00076	0.01476	0.01706	0.00015
o,p -DDE					
p,p -DDE	0.00312	0.00781	0.04109	0.04794	0.00082
o,p -DDT					
p,p -DDT	0.00015	0.00017	0.00376	0.00482	0.00007
Aldrin					

TABLE 2-1 PHASE II HARBOR AND REFERENCE LOCATIONS
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	Maximum Homarus americanus tail/claw Adult Lobster	95% UCL Average* Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Maximum Homarus americanus hepatopancreas (Tomalley) Adult Lobster	95% UCL Average* Mytilus edulis mussel indigenous	Maximum Mytilus edulis mussel indigenous
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
8 (2 4') Congener number; position of chlorines	0.00013	0.00071	0.00128	0.00040	0.00041
18 (2 2' 5)	0.38796	0.00116	0.00203	0.00042	0.00043
28 (2 4 4')	0.00033	0.00116	0.00203	0.00020	0.00021
52 (2 2' 5 5')	0.00016	0.00597	0.01434	0.00037	0.00075
44 (2 2' 3 5')	0.00004	0.00126	0.00327	0.00017	0.00032
66 (2 3' 4 4')	0.00025	0.02361	0.03630	0.00013	0.00067
101 (2 2' 4 5 5')	0.00032	0.01730	0.03630	0.00125	0.00125
PCB118	0.00114	0.07167	0.08629	0.00111	0.00340
153 (2 2' 4 4' 5 5')	0.00728	0.12078	0.14241	0.01727	0.04050
105 (2 3 3' 4 4')	0.00036	0.02642	0.03092	0.00032	0.00121
138 (2 2' 3 4 4' 5)	0.00124	0.10360	0.12186	0.00181	0.00643
187 (2 2' 3 4' 5 5' 6)	0.00056	0.04626	0.05887	0.00067	0.00175
128 (2 2' 3 3' 4 4')	0.00024	0.01909	0.02313	0.00040	0.00153
180 (2 2' 3 4 4' 5 5')	0.00054	0.05403	0.02313	0.00024	0.00060
170 (2 2' 3 3' 4 4' 5)	0.00023	0.01976	0.02830	0.00016	0.00017
195 (2 2' 3 3' 4 4' 5 6)	0.00005	0.00581	0.00745	0.00010	0.00011
206 (2 2' 3 3' 4 4' 5 5' 6)	0.00009	0.00907	0.01198	0.00011	0.00011
209 (2 2' 3 3' 4 4' 5 5' 6 6')	0.00005	0.00425	0.00568	0.00009	0.00010
Sum of PCB Congeners.	0.00648	0.53119	0.63014	0.01000	0.02924
Hexachlorobenzene	0.00009	0.00461	0.00626	0.00073	0.00137
Lindane (gamma-BHC)	0.00043	0.00191	0.00231	0.00012	0.00012
Alpha-chlordane as chlorodane	0.00008	0.00664	0.01035	0.00024	0.00064
Trans-nonachlor	0.00017	0.01826	0.02766	0.00011	0.00042
Heptachlor				0.00011	0.00063
Heptachlor epoxide				0.00024	0.00025
Mirex				0.00006	0.00006
o,p -DDD				0.00041	0.00261
p,p -DDD	0.00022	0.03292	0.06586	0.00098	0.00280
o,p -DDE				0.00008	0.00031
p,p -DDE	0.00107	0.28401	0.36312	0.00156	0.00337
o,p -DDT				0.00030	0.00087
p,p -DDT	0.00008	0.01691	0.03158	0.00232	0.00486
Aldrin				0.00009	0.00009

TABLE 2-1 PHASE II HARBOR AND REFERENCE LOCATIONS
MAXIMUM AND 95 PERCENTILE UPPER CONFIDENCE LEVEL AVERAGE CONCENTRATION FOR SEAFOOD

Chemical of Potential Concern	Maximum Homarus americanus tail/claw Adult Lobster	95% UCL Average* Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Maximum Homarus americanus hepatopancreas (Tomalley) Adult Lobster	95% UCL Average* Mytilus edulis mussel indigenous	Maximum Mytilus edulis mussel indigenous
	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight	mg/kg wet weight
8 (2 4') Congener number; position of chlorines	0.00013	0.00071	0.00128	0.00040	0.00041
18 (2 2' 5)	0.38796	0.00116	0.00203	0.00042	0.00043
28 (2 4 4')	0.00033	0.00116	0.00203	0.00020	0.00021
52 (2 2' 5 5')	0.00016	0.00597	0.01434	0.00037	0.00075
44 (2 2' 3 5')	0.00004	0.00126	0.00327	0.00017	0.00032
66 (2 3' 4 4')	0.00025	0.02361	0.03630	0.00013	0.00067
101 (2 2' 4 5 5')	0.00032	0.01730	0.03630	0.00125	0.00125
PCB118	0.00114	0.07167	0.08629	0.00111	0.00340
153 (2 2' 4 4' 5 5')	0.00728	0.12078	0.14241	0.01727	0.04050
105 (2 3 3' 4 4')	0.00036	0.02642	0.03092	0.00032	0.00121
138 (2 2' 3 4 4' 5)	0.00124	0.10360	0.12186	0.00181	0.00643
187 (2 2' 3 4' 5 5' 6)	0.00056	0.04626	0.05887	0.00067	0.00175
128 (2 2' 3 3' 4 4')	0.00024	0.01909	0.02313	0.00040	0.00153
180 (2 2' 3 4 4' 5 5')	0.00054	0.05403	0.02313	0.00024	0.00060
170 (2 2' 3 3' 4 4' 5)	0.00023	0.01976	0.02830	0.00016	0.00017
195 (2 2' 3 3' 4 4' 5 6)	0.00005	0.00581	0.00745	0.00010	0.00011
206 (2 2' 3 3' 4 4' 5 5' 6)	0.00009	0.00907	0.01198	0.00011	0.00011
209 (2 2' 3 3' 4 4' 5 5' 6 6')	0.00005	0.00425	0.00568	0.00009	0.00010
Sum of PCB Congeners.	0.00648	0.53119	0.63014	0.01000	0.02924
Hexachlorobenzene	0.00009	0.00461	0.00626	0.00073	0.00137
Lindane (gamma-BHC)	0.00043	0.00191	0.00231	0.00012	0.00012
Alpha-chlordane as chlorodane	0.00008	0.00664	0.01035	0.00024	0.00064
Trans-nonachlor	0.00017	0.01826	0.02766	0.00011	0.00042
Heptachlor				0.00011	0.00063
Heptachlor epoxide				0.00024	0.00025
Mirex				0.00006	0.00006
o,p -DDD				0.00041	0.00261
p,p -DDD	0.00022	0.03292	0.06586	0.00098	0.00280
o,p -DDE				0.00008	0.00031
p,p -DDE	0.00107	0.28401	0.36312	0.00156	0.00337
o,p -DDT				0.00030	0.00087
p,p -DDT	0.00008	0.01691	0.03158	0.00232	0.00486
Aldrin				0.00009	0.00009

TABLE 3-1 PHASE II HARBOR AND REFERENCE LOCATIONS
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
Aluminum	1.00E+00	NA	*
Silver	5.00E-03	NA	D
Arsenic	3.00E-04	1.50E+00	A
Cadmium	5.00E-04	NA	B1
			*
Chromium (VI)	5.00E-03	Under revision	NA
Copper	4.00E-02	NA	D
Iron	NA	NA	*
Manganese	1.40E-01	NA	D
Nickle (soluable salts)	2.00E-02	NA	NA
Lead			B2
Zinc	3.00E-01	NA	D
Mercury (as inorganic)	3.00E-04		D
Methyl-Mercury	1.00E-04	NA	C
			*

TABLE 3-1 PHASE II HARBOR AND REFERENCE LOCATIONS
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
Fluorene	4.00E-02	NA	D
Phenanthrene	***4.00E-03***	***NA***	***D***
Anthracene	3.00E-01	NA	D
C1-phenanthrene + anthracene			*
C2-phenanthrene + anthracene			*
C3-phenanthrene + anthracene			*
C4-phenanthrene + anthracene			*
			*
Fluoranthene	4.00E-02	NA	D
Pyrene	3.00E-02		D
Benzo(a)anthracene (0.1 TEF)	NA	7.30E-01	B2
Chrysene (0.001 TEF)	NA	7.30E-03	B2
Sum of benzofluoranthenes			*
Benzo(e)pyrene	NA	NA	under revision
Benzo(a)pyrene (1.0 TEF)	NA	***7.30E+00***	B2
Perylene	NA	NA	*
Indeno(1,2,3-cd)pyrene (0.1 TEF)	NA	7.30E-01	B2
Dibenz(a,h)anthracene (1.0 TEF)	NA	7.30E+00	B2
Benzo(g,h,i)perylene	4.00E-03	NA	D
Sum of measured PAHs			*

TABLE 3-1 PHASE II HARBOR AND REFERENCE LOCATIONS
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
8 (2 4') Congener number; position of chlorines			*
			*
18 (2 2' 5)			*
28 (2 4 4')			*
52 (2 2' 5 5')			*
44 (2 2' 3 5')			*
66 (2 3' 4 4')			*
101 (2 2' 4 5 5')			*
118			*
153 (2 2' 4 4' 5 5')			*
105 (2 3 3' 4 4')			*
138 (2 2' 3 4 4' 5)			*
187 (2 2' 3 4' 5 5' 6)			*
128 (2 2' 3 3' 4 4')			*
180 (2 2' 3 4 4' 5 5')			*
170 (2 2' 3 3' 4 4' 5)			*
195 (2 2' 3 3' 4 4' 5 6)			*
206 (2 2' 3 3' 4 4' 5 5' 6)			*
209 (2 2' 3 3' 4 4' 5 5' 6 6')			*
Sum of PCB Congeners.		7.70E+00	B2
			*

TABLE 3-1 PHASE II HARBOR AND REFERENCE LOCATIONS
DOSE-RESPONSE PARAMETERS CHEMICALS OF POTENTIAL CONCERN

Chemical of Potential Concern	Oral Reference Dose (mg/kg/day)	Oral Slope Factor [1/(mg/kg/day)]	Weight of Evidence
Hexachlorobenzene	8.00E-04	***1.60E+00***	***B2***
Lindane (gamma-BHC)	3.00E-04	1.30E+00	*
Alpha-chlordane (as chlordane)	6.00E-05	1.30E+00	B2
Trans-nonachlor	NA	NA	*
Heptachlor	5.00E-04	4.50E+00	B2
Heptachlor epoxide	1.30E-05	9.10E+00	B2
Mirex	2.00E-04	***1.80E+00***	Under Revision
o,p -DDD (2,4' -DDD)	NA	NA	*
p,p -DDD (4,4'-DDD)	NA	2.40E-01	B2
o,p -DDE (2,4'-DDD)	NA	NA	*
p,p -DDE (4,4'-DDE)	NA	3.40E-01	B2
o,p -DDT (2,4'-DDT)	NA	NA	*
p,p -DDT (4.4'-DDT)	5.00E-04	3.40E-01	B2
Aldrin	3.00E-05	1.70E+01	B2

TABLE 4-1 PHASE II HARBOR AND REFERENCE LOCATIONS
EXPOSURE ASSESSMENT INPUT PARAMETERS
(SEAFOOD INTAKE FACTORS)

Central Tendency for Nine year exposure		Exposure Frequency	Exposure Duration	Non-carcinogen Averaging Time	Carcinogen Average Time	Receptor Body Weight
	Ingestion Rate (Kg/meal	Meals per year	Years	Days	Days	Weight in Kg
Lobster tail and claw	0.095	6	9	3285	25550	70
Lobster hepatopancreas	0.019	6	9	3285	25550	70
						70
Flounder Filet	0.0324	350	9	3285	25550	70
Flounder Liver	0.019	350	9	3285	25550	70
Mussels	0.0324	350	9	3285	25550	70

TABLE 4-1 PHASE II HARBOR AND REFERENCE LOCATIONS
EXPOSURE ASSESSMENT INPUT PARAMETERS
(SEAFOOD INTAKE FACTORS)

High End for 30 year exposure		Exposure Frequency	Exposure Duration	Non-carcinogen Averaging Time	Carcinogen Average Time	Receptor Body Weight
	Ingestion Rate (Kg/meal	Meals per year	Years		Days	Weight in Kg
Lobster tail and claw	0.095	52	30	10950	25550	70
Lobster hepatopancreas	0.019	52	30	10950	25550	70
Flounder Filet	0.055	350	30	10950	25550	70
Flounder Liver	0.019	350	30	10950	25550	70
Mussels	0.055	350	30	10950	25550	70

TABLE 4-2A PHASE II HARBOR AND REFERENCE LOCATIONS
SEAFOOD INTAKES LOBSTER TAIL AND CLAW
FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central Tendency Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Carcinogenic Central Tendency Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Intake Carcinogenic High End Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Carcinogenic High End Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	1.37E-06	1.11E-06	3.95E-05	3.20E-05
Silver	4.61E-07	3.04E-07	1.33E-05	8.78E-06
10% of total Arsenic	1.68E-06	1.08E-06	4.85E-05	3.11E-05
Cadmium	1.72E-08	1.02E-08	4.96E-07	2.94E-07
assume Chromium III	2.16E-07	1.63E-07	6.23E-06	4.71E-06
assume Chromium IV	2.16E-07	1.63E-07	6.23E-06	4.71E-06
Copper	2.08E-05	1.41E-05	6.01E-04	4.07E-04
Iron	6.35E-06	3.49E-06	1.83E-04	1.01E-04
Manganese	1.47E-06	7.50E-07	4.25E-05	2.17E-05
Nickle	1.21E-07	1.15E-07	3.50E-06	3.34E-06
Lead	1.45E-07	5.84E-08	4.19E-06	1.69E-06
Zinc	8.24E-05	6.92E-05	2.38E-03	2.00E-03
Mercury (Total)	9.28E-07	4.83E-07	2.68E-05	1.40E-05
Methyl-Mercury	8.72E-07	6.23E-07	2.52E-05	1.80E-05
Fluorene	2.67E-09	1.23E-09	7.72E-08	3.54E-08
Phenanthrene	1.33E-08	6.34E-09	3.85E-07	1.83E-07
Anthracene	1.84E-09	1.38E-09	5.32E-08	3.99E-08
C1-phenanthrene + anthracene	2.07E-08	9.32E-09	5.98E-07	2.69E-07
C2-phenanthrene + anthracene	2.88E-08	1.15E-08	8.33E-07	3.32E-07
C3-phenanthrene + anthracene	2.47E-08	1.06E-08	7.13E-07	3.06E-07
C4-phenanthrene + anthracene	2.47E-08	1.02E-08	7.13E-07	2.94E-07
Sum C1:C4-phenanthrene + anthracene	9.89E-08	4.16E-08	2.86E-06	1.20E-06
Fluoranthene	9.92E-08	3.42E-08	2.86E-06	9.87E-07
Pyrene	1.07E-07	4.36E-08	3.10E-06	1.26E-06
Benz(a)anthracene	1.16E-08	5.29E-09	3.36E-07	1.53E-07
Chrysene	1.76E-08	8.22E-09	5.08E-07	2.37E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	5.10E-08	2.07E-08	1.47E-06	5.97E-07
Benzo(e)pyrene	1.38E-08	6.91E-09	3.97E-07	2.00E-07
Benzo(a)pyrene	1.56E-08	7.31E-09	4.51E-07	2.11E-07
Perylene	4.62E-09	2.44E-09	1.34E-07	7.05E-08
Indeno(1,2,3-cd)pyrene	1.00E-08	4.40E-09	2.90E-07	1.27E-07
Dibenz(a,h)anthracene	9.87E-10	6.17E-10	2.85E-08	1.78E-08
Benzo(g,h,i)perylene	1.22E-08	6.32E-09	3.54E-07	1.82E-07
Sum of measured PAHs	4.51E-07	1.86E-07	1.30E-05	5.36E-06
Sum of PCB Congeners.	1.86E-08	1.34E-08	5.37E-07	3.87E-07
Hexachlorobenzene	2.73E-10	2.14E-10	7.87E-09	6.19E-09
Lindane (gamma-BHC)	1.24E-09	7.83E-10	3.58E-08	2.26E-08
Alpha-chlordane as chlorodane	2.40E-10	1.83E-10	6.95E-09	5.30E-09
Trans-nonachlor	4.87E-10	3.24E-10	1.41E-08	9.36E-09
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	6.41E-10	4.36E-10	1.85E-08	1.26E-08
o,p -DDE				
p,p -DDE	3.07E-09	2.34E-09	8.86E-08	6.77E-08
o,p -DDT				
p,p -DDT	2.30E-10	2.04E-10	6.65E-09	5.88E-09
Aldrin				

TABLE 4-2. 'HASE II HARBOR AND REFERENCE CATIONS
SEAFOOD INTAKES LOBSTER TAIL AND CLAW
FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Non-carcinogenic Central Tendency Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Non-carcinogenic Central Tendency Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Intake Non-carcinogenic High End Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Intake Non-carcinogenic High End Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	1.06E-05	8.60E-06	9.19E-05	7.44E-05
Silver	3.58E-06	2.36E-06	3.10E-05	2.05E-05
10% of total Arsenic	1.31E-05	8.35E-06	1.13E-04	7.23E-05
Cadmium	1.33E-07	7.91E-08	1.15E-06	6.84E-07
assume Chromium III	1.68E-06	1.27E-06	1.45E-05	1.10E-05
assume Chromium IV	1.68E-06	1.27E-06	1.45E-05	1.10E-05
Copper	1.62E-04	1.10E-04	1.40E-03	9.48E-04
Iron	4.94E-05	2.71E-05	4.27E-04	2.35E-04
Manganese	1.14E-05	5.82E-06	9.89E-05	5.04E-05
Nickle	9.41E-07	8.97E-07	8.15E-06	7.77E-06
Lead	1.13E-06	4.54E-07	9.75E-06	3.93E-06
Zinc	6.40E-04	5.38E-04	5.54E-03	4.66E-03
Mercury (Total)	7.21E-06	3.75E-06	6.24E-05	3.25E-05
Methyl-Mercury	6.77E-06	4.84E-06	5.86E-05	4.19E-05
Fluorene	2.08E-08	9.52E-09	1.80E-07	8.24E-08
Phenanthrene	1.04E-07	4.92E-08	8.96E-07	4.26E-07
Anthracene	1.43E-08	1.07E-08	1.24E-07	9.29E-08
C1-phenanthrene + anthracene	1.61E-07	7.24E-08	1.39E-06	6.27E-07
C2-phenanthrene + anthracene	2.24E-07	8.94E-08	1.94E-06	7.74E-07
C3-phenanthrene + anthracene	1.92E-07	8.22E-08	1.66E-06	7.12E-07
C4-phenanthrene + anthracene	1.92E-07	7.92E-08	1.66E-06	6.85E-07
Sum C1:C4-phenanthrene + anthracene	7.69E-07	3.23E-07	6.65E-06	2.80E-06
Fluoranthene	7.71E-07	2.65E-07	6.67E-06	2.30E-06
Pyrene	8.33E-07	3.39E-07	7.21E-06	2.93E-06
Benz(a)anthracene	9.03E-08	4.11E-08	7.82E-07	3.55E-07
Chrysene	1.37E-07	6.39E-08	1.18E-06	5.53E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	3.96E-07	1.61E-07	3.43E-06	1.39E-06
Benzo(e)pyrene	1.07E-07	5.37E-08	9.25E-07	4.65E-07
Benzo(a)pyrene	1.21E-07	5.68E-08	1.05E-06	4.91E-07
Perylene	3.59E-08	1.90E-08	3.11E-07	1.64E-07
Indeno(1,2,3-cd)pyrene	7.79E-08	3.42E-08	6.74E-07	2.96E-07
Dibenz(a,h)anthracene	7.67E-09	4.79E-09	6.63E-08	4.15E-08
Benzo(g,h,i)perylene	9.51E-08	4.91E-08	8.23E-07	4.25E-07
Sum of measured PAHs	3.51E-06	1.44E-06	3.04E-05	1.25E-05
Sum of PCB Congeners.	1.44E-07	1.04E-07	1.25E-06	9.01E-07
Hexachlorobenzene	2.12E-09	1.67E-09	1.83E-08	1.44E-08
Lindane (gamma-BHC)	9.62E-09	6.09E-09	8.32E-08	5.27E-08
Alpha-chlordane as chlorodane	1.87E-09	1.43E-09	1.62E-08	1.23E-08
Trans-nonachlor	3.78E-09	2.52E-09	3.27E-08	2.18E-08
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	4.98E-09	3.39E-09	4.31E-08	2.93E-08
o,p -DDE				
p,p -DDE	2.38E-08	1.82E-08	2.06E-07	1.58E-07
o,p -DDT				
p,p -DDT	1.79E-09	1.58E-09	1.55E-08	1.37E-08
Aldrin				

TABLE 4-2B PHASE II HARBOR AND REFERENCE LOCATIONS
SEAFOOD INTAKES LOP~~ER HEPATOPANCREAS FOR CANCER ~ ~) NONCANCER RISK
CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central Tendency Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Carcinogenic Central Tendency Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Carcinogenic High End Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Carcinogenic High End Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	4.32E-06	1.38E-06	1.25E-04	3.99E-05
Silver	3.26E-07	2.07E-07	9.44E-06	5.98E-06
10% of total Arsenic	6.56E-07	4.03E-07	1.90E-05	1.17E-05
Cadmium	5.70E-06	3.05E-06	1.65E-04	8.81E-05
assume Chromium IV	1.33E-07	7.78E-08	3.84E-06	2.25E-06
Copper	2.96E-04	9.35E-05	8.57E-03	2.70E-03
Iron	6.23E-05	2.90E-05	1.80E-03	8.38E-04
Manganese	1.62E-06	1.35E-06	4.67E-05	3.91E-05
Nickle	8.35E-07	3.75E-07	2.42E-05	1.08E-05
Zinc	2.20E-05	1.57E-05	6.35E-04	4.54E-04
Mercury (Inorganic)	1.47E-07	6.49E-08	4.25E-06	1.88E-06
Methyl-Mercury	3.42E-08	3.15E-08	9.89E-07	9.12E-07
Fluorene	9.32E-09	4.76E-09	2.70E-07	1.38E-07
Phenanthrene	1.01E-07	3.19E-08	2.93E-06	9.23E-07
Anthracene	5.12E-08	1.26E-08	1.48E-06	3.66E-07
C1-phenanthrene + anthracene	1.16E-07	3.83E-08	3.35E-06	1.11E-06
C2-phenanthrene + anthracene	9.29E-08	3.61E-08	2.69E-06	1.04E-06
C3-phenanthrene + anthracene	6.30E-08	2.43E-08	1.82E-06	7.04E-07
C4-phenanthrene + anthracene	2.03E-08	1.16E-08	5.86E-07	3.36E-07
Sum C1:C4-phenanthrene + anthracene	2.92E-07	1.10E-07	8.44E-06	3.19E-06
Fluoranthene	2.55E-07	8.09E-08	7.37E-06	2.34E-06
Pyrene	1.60E-07	4.86E-08	4.63E-06	1.41E-06
Benz(a)anthracene	5.63E-08	1.49E-08	1.63E-06	4.31E-07
Chrysene	8.78E-08	2.76E-08	2.54E-06	7.97E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	1.25E-07	4.07E-08	3.62E-06	1.18E-06
Benzo(e)pyrene	5.76E-08	1.88E-08	1.67E-06	5.45E-07
Benzo(a)pyrene	1.06E-07	3.85E-08	3.07E-06	1.11E-06
Perylene	3.76E-08	2.15E-08	1.09E-06	6.22E-07
Indeno(1,2,3-cd)pyrene	2.37E-08	7.29E-09	6.86E-07	2.11E-07
Dibenz(a,h)anthracene	4.61E-09	1.52E-09	1.33E-07	4.39E-08
Benzo(g,h,i)perylene	3.47E-08	1.17E-08	1.00E-06	3.39E-07
Sum of measured PAHs	1.35E-06	4.37E-07	3.92E-05	1.26E-05
Sum of PCB Congeners.	3.62E-07	3.05E-07	1.05E-05	8.82E-06
Hexachlorobenzene	3.60E-09	2.64E-09	1.04E-07	7.65E-08
Lindane (gamma-BHC)	1.33E-09	1.10E-09	3.83E-08	3.17E-08
Alpha-chlordane as chlorodane	5.94E-09	3.81E-09	1.72E-07	1.10E-07
Trans-nonachlor	1.59E-08	1.05E-08	4.59E-07	3.03E-07
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	3.78E-08	1.89E-08	1.09E-06	5.46E-07
o,p -DDE				
p,p -DDE	2.08E-07	1.63E-07	6.03E-06	4.71E-06
o,p -DDT				
p,p -DDT	1.81E-08	9.71E-09	5.24E-07	2.81E-07
Aldrin				

TABLE 4-2B PHASE II HARBOR AND REFERENCE LOCATIONS
SEAFOOD INTAKES LOB ER HEPATOPANCREAS FOR CANCER / NONCANCER RISK
CALCULATIONS

Chemical of Potential Concern	Intake Non-carcinogenic Central Tendency Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Non-carcinogenic Central Tendency Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Non-carcinogenic High End Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Intake Non-carcinogenic High End Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	3.35E-05	1.07E-05	2.91E-04	9.30E-05
Silver	2.54E-06	1.61E-06	2.20E-05	1.39E-05
10% of total Arsenic	5.10E-06	3.13E-06	4.43E-05	2.72E-05
Cadmium	4.43E-05	2.37E-05	3.84E-04	2.05E-04
assume Chromium IV	1.03E-06	6.05E-07	8.96E-06	5.25E-06
Copper	2.30E-03	7.26E-04	2.00E-02	6.30E-03
Iron	4.84E-04	2.25E-04	4.20E-03	1.95E-03
Manganese	1.26E-05	1.05E-05	1.09E-04	9.10E-05
Nickle	6.49E-06	2.91E-06	5.63E-05	2.53E-05
Zinc	1.71E-04	1.22E-04	1.48E-03	1.06E-03
Mercury (Inorganic)	1.14E-06	5.05E-07	9.90E-06	4.38E-06
Methyl-Mercury	2.66E-07	2.45E-07	2.31E-06	2.13E-06
Fluorene	7.24E-08	3.70E-08	6.29E-07	3.21E-07
Phenanthrene	7.86E-07	2.48E-07	6.82E-06	2.15E-06
Anthracene	3.98E-07	9.83E-08	3.45E-06	8.53E-07
C1-phenanthrene + anthracene	9.00E-07	2.97E-07	7.81E-06	2.58E-06
C2-phenanthrene + anthracene	7.22E-07	2.80E-07	6.26E-06	2.43E-06
C3-phenanthrene + anthracene	4.89E-07	1.89E-07	4.25E-06	1.64E-06
C4-phenanthrene + anthracene	1.57E-07	9.03E-08	1.37E-06	7.84E-07
Sum C1:C4-phenanthrene + anthracene	2.27E-06	8.57E-07	1.97E-05	7.44E-06
Fluoranthene	1.98E-06	6.28E-07	1.72E-05	5.45E-06
Pyrene	1.24E-06	3.78E-07	1.08E-05	3.28E-06
Benz(a)anthracene	4.38E-07	1.16E-07	3.80E-06	1.00E-06
Chrysene	6.82E-07	2.14E-07	5.92E-06	1.86E-06
Sum of benzofluoranthenes as benzo(b) fluoranthene	9.72E-07	3.16E-07	8.43E-06	2.74E-06
Benzo(e)pyrene	4.47E-07	1.46E-07	3.88E-06	1.27E-06
Benzo(a)pyrene	8.24E-07	2.99E-07	7.15E-06	2.60E-06
Perylene	2.92E-07	1.67E-07	2.54E-06	1.45E-06
Indeno(1,2,3-cd)pyrene	1.84E-07	5.67E-08	1.60E-06	4.92E-07
Dibenz(a,h)anthracene	3.58E-08	1.18E-08	3.11E-07	1.02E-07
Benzo(g,h,i)perylene	2.69E-07	9.11E-08	2.34E-06	7.90E-07
Sum of measured PAHs	1.05E-05	3.40E-06	9.13E-05	2.95E-05
Sum of PCB Congeners.	2.81E-06	2.37E-06	2.44E-05	2.06E-05
Hexachlorobenzene	2.79E-08	2.05E-08	2.42E-07	1.78E-07
Lindane (gamma-BHC)	1.03E-08	8.51E-09	8.93E-08	7.39E-08
Alpha-chlordane as chlorodane	4.62E-08	2.96E-08	4.01E-07	2.57E-07
Trans-nonachlor	1.23E-07	8.14E-08	1.07E-06	7.06E-07
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	2.94E-07	1.47E-07	2.55E-06	1.27E-06
o,p -DDE				
p,p -DDE	1.62E-06	1.27E-06	1.41E-05	1.10E-05
o,p -DDT				
p,p -DDT	1.41E-07	7.54E-08	1.22E-06	6.55E-07
Aldrin				

TABLE 4-2C PHASE II HARBOR AND REFERENCE LOCATIONS
SEAFOOD INTAKES MUSSELS
FOR NCER AND NON-CANCER CALCULATI S

Chemical of Potential Concern	Intake Carcinogenic Central Tendency using Maximum Concentration Mytilus edulis mussel indigenous	Intake Carcinogenic Central Tendency using 95% UCL Mytiluslus edulis mussel indigenous	Intake Carcinogenic High End using Maximum Concentration Mytilus edulis mussel indigenous	Intake Carcinogenic High End using 95% UCL Mytiluslus edulis mussel indigenous
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	9.37E-03	4.83E-03	5.30E-02	2.73E-02
Silver	7.20E-06	3.17E-06	4.07E-05	1.79E-05
10% of total Arsenic	1.20E-05	9.36E-06	6.76E-05	5.30E-05
Cadmium	3.94E-05	2.24E-05	2.23E-04	1.27E-04
assume Chromium III	9.11E-04	3.39E-04	5.15E-03	1.92E-03
assume Chromium IV	9.11E-04	3.39E-04	5.15E-03	1.92E-03
Copper	3.15E-04	1.47E-04	1.78E-03	8.32E-04
Iron	1.97E-02	1.19E-02	1.11E-01	6.75E-02
Manganese	9.40E-03	2.26E-03	5.32E-02	1.28E-02
Nickle	1.07E-03	3.79E-04	6.06E-03	2.14E-03
Lead	1.56E-03	3.97E-04	8.85E-03	2.25E-03
Zinc	1.97E-03	1.08E-03	1.12E-02	6.08E-03
Mercury (Total)	4.30E-05	5.46E-06	2.43E-04	3.09E-05
Methyl-Mercury (no data)				
Fluorene	3.36E-06	4.24E-07	1.90E-05	2.40E-06
Phenanthrene	2.68E-05	2.51E-06	1.51E-04	1.42E-05
Anthracene	2.85E-06	4.31E-07	1.61E-05	2.44E-06
C1-phenanthrene + anthracene	1.35E-05	1.57E-06	7.66E-05	8.86E-06
C2-phenanthrene + anthracene	8.06E-06	1.43E-06	4.56E-05	8.09E-06
C3-phenanthrene + anthracene	3.52E-06	8.67E-07	1.99E-05	4.90E-06
C4-phenanthrene + anthracene	7.30E-06	1.27E-06	4.13E-05	7.21E-06
Sum C1:C4-phenanthrene + anthracene	3.24E-05	5.14E-06	1.83E-04	2.91E-05
Fluoranthene	4.15E-05	4.10E-06	2.35E-04	2.32E-05
Pyrene	2.78E-05	2.78E-06	1.58E-04	1.58E-04
Benz(a)anthracene	1.35E-05	1.40E-06	7.66E-05	7.91E-06
Chrysene	1.04E-05	1.24E-06	5.89E-05	6.99E-06
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene	4.65E-06	7.48E-07	2.63E-05	4.23E-06
Benzo(a)pyrene	4.01E-06	5.07E-07	2.27E-05	2.87E-06
Perylene	1.38E-06	2.24E-07	7.80E-06	1.27E-06
Indeno(1,2,3-cd)pyrene	1.38E-06	3.53E-07	7.80E-06	2.00E-06
Dibenz(a,h)anthracene	4.72E-07	1.89E-07	2.67E-06	1.07E-06
Benzo(g,h,i)perylene	1.23E-06	3.13E-07	6.97E-06	1.77E-06
Sum of measured PAHs	1.69E-04	2.03E-05	9.56E-04	1.15E-04
Sum of PCB Congeners.	1.67E-06	5.71E-07	9.44E-06	3.23E-06
Hexachlorobenzene	7.80E-08	4.19E-08	4.41E-07	2.37E-07
Lindane (gamma-BHC)	6.94E-09	6.76E-09	3.93E-08	3.82E-08
Alpha-chlordane as chlorodane	3.65E-08	1.37E-08	2.07E-07	7.73E-08
Trans-nonachlor	2.41E-08	6.15E-09	1.37E-07	3.48E-08
Heptachlor				
Heptachlor epoxide	1.45E-08	1.37E-08	8.19E-08	7.75E-08
Mirex	3.50E-09	3.39E-09	1.98E-08	1.92E-08
o,p -DDD	1.49E-07	2.33E-08	8.44E-07	1.32E-07
p,p -DDD	1.60E-07	5.61E-08	9.05E-07	3.17E-07
o,p -DDE	1.80E-08	4.50E-09	1.02E-07	2.55E-08
p,p -DDE	1.93E-07	8.90E-08	1.09E-06	5.04E-07
o,p -DDT	4.98E-08	1.72E-08	2.81E-07	9.72E-08
p,p -DDT	2.78E-07	1.33E-07	1.57E-06	7.50E-07
Aldrin	5.26E-09	5.10E-09	2.97E-08	2.89E-08

TABLE 4-2C PHASE II HARBOR AND REFERENCE LOCATIONS
SEAFOOD INTAKES MUSSELS
FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Non-Carcinogenic Central Tendency using Maximum concentration Mytilus edulis mussel indigenous	Intake Non-carcinogenic Central Tendency using 95% UCL Mytiluslus edulis mussel indigenous	Intake Non-carcinogenic Central Tendency using average Mytiluslus edulis mussel indigenous	Intake Non-carcinogenic High End using Maximum concentration Mytilus edulis mussel indigenous	Intake Non-Carcinogenic High End using 95% UCL Mytiluslus edulis mussel indigenous
	mg/kg/day	mg/kg/day		mg/kg/day	mg/kg/day
Aluminum	7.29E-02	3.75E-02		1.24E-01	6.37E-02
Silver	5.60E-05	2.47E-05		9.50E-05	4.18E-05
10% of total Arsenic	9.30E-05	7.28E-05		1.58E-04	1.23E-04
Cadmium	3.06E-04	1.74E-04		5.19E-04	2.96E-04
assume Chromium III	7.08E-03	2.64E-03		1.20E-02	4.47E-03
assume Chromium IV	7.08E-03	2.64E-03		1.20E-02	4.47E-03
Copper	2.45E-03	1.14E-03		4.16E-03	1.94E-03
Iron	1.53E-01	9.28E-02		2.60E-01	1.57E-01
Manganese	7.31E-02	1.76E-02		1.24E-01	2.98E-02
Nickle	8.33E-03	2.95E-03		1.41E-02	4.99E-03
Lead	1.22E-02	3.09E-03		2.06E-02	5.24E-03
Zinc	1.53E-02	8.36E-03		2.60E-02	1.42E-02
Mercury (Total)	3.35E-04	4.25E-05	3.29E-05	5.67E-04	7.20E-05
Methyl-Mercury (no data)					
Fluorene	2.62E-05	3.29E-06		4.44E-05	5.59E-06
Phenanthrene	2.08E-04	1.95E-05		3.53E-04	3.31E-05
Anthracene	2.22E-05	3.35E-06		3.76E-05	5.68E-06
C1-phenanthrene + anthracene	1.05E-04	1.22E-05		1.78E-04	2.07E-05
C2-phenanthrene + anthracene	6.27E-05	1.11E-05		1.06E-04	1.89E-05
C3-phenanthrene + anthracene	2.74E-05	6.74E-06		4.64E-05	1.14E-05
C4-phenanthrene + anthracene	5.68E-05	9.91E-06		9.63E-05	1.68E-05
Sum C1:C4-phenanthrene + anthracene	2.52E-04	3.99E-05		4.27E-04	6.77E-05
Fluoranthene	3.22E-04	3.19E-05		5.47E-04	5.41E-05
Pyrene	2.17E-04	2.17E-04	1.29E-05	3.67E-04	3.67E-04
Benz(a)anthracene	1.05E-04	1.09E-05		1.78E-04	1.84E-05
Chrysene	8.09E-05	9.60E-06		1.37E-04	1.63E-05
Sum of benzofluoranthenes as benzo(b) fluoranthene					
Benzo(e)pyrene	3.61E-05	5.82E-06		6.13E-05	9.87E-06
Benzo(a)pyrene	3.12E-05	3.94E-06		5.29E-05	6.69E-06
Perylene	1.07E-05	1.74E-06		1.82E-05	2.95E-06
Indeno(1,2,3-cd)pyrene	1.07E-05	2.74E-06		1.82E-05	4.65E-06
Dibenz(a,h)anthracene	3.67E-06	1.47E-06		6.23E-06	2.49E-06
Benzo(g,h,i)perylene	9.57E-06	2.44E-06		1.62E-05	4.13E-06
Sum of measured PAHs	1.31E-03	1.58E-04		2.23E-03	2.67E-04
Sum of PCB Congeners.	1.30E-05	4.44E-06		2.20E-05	7.53E-06
Hexachlorobenzene	6.07E-07	3.26E-07		1.03E-06	5.53E-07
Lindane (gamma-BHC)	5.40E-08	5.26E-08		9.15E-08	8.91E-08
Alpha-chlordane as chlorodane	2.84E-07	1.06E-07		4.82E-07	1.80E-07
Trans-nonachlor	1.88E-07	4.78E-08		3.18E-07	8.11E-08
Heptachlor					
Heptachlor epoxide	1.13E-07	1.07E-07		1.91E-07	1.81E-07
Mirex	2.72E-08	2.63E-08		4.62E-08	4.47E-08
o,p -DDD	1.16E-06	1.81E-07		1.97E-06	3.07E-07
p,p -DDD	1.24E-06	4.36E-07		2.11E-06	7.40E-07
o,p -DDE	1.40E-07	3.50E-08		2.37E-07	5.94E-08
p,p -DDE	1.50E-06	6.92E-07		2.54E-06	1.17E-06
o,p -DDT	3.87E-07	1.34E-07		6.56E-07	2.27E-07
p,p -DDT	2.16E-06	1.03E-06		3.66E-06	1.75E-06
Aldrin	4.09E-08	3.97E-08		6.93E-08	6.73E-08

TABLE 4-2D PHASE II HARBOR AND REFERENCE LOCATIONS
SEAFOOD INTAKES FLOUNDER FILET FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Carcinogenic Central Tendency using 95% UCL concentration Pseudo-pleuronectes americanus filet flounder flesh	Intake Carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Carcinogenic Central Tendency using Average concentration Pseudo-pleuronectes americanus filet flounder flesh	Intake Carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh
	mg/kg/day	mg/kg/day	mg/kg/day		mg/kg/day
Aluminum	4.54E-05	2.90E-05	2.57E-04		1.64E-04
Silver	1.87E-06	1.77E-06	1.06E-05		1.00E-05
10% of total Arsenic	5.78E-05	3.15E-05	3.27E-04		1.78E-04
Cadmium	2.34E-07	1.92E-07	1.33E-06		1.09E-06
assume Chromium III	4.10E-06	3.30E-06	2.32E-05		1.87E-05
assume Chromium IV	4.10E-06	3.30E-06	2.32E-05		1.87E-05
Copper	5.93E-06	3.82E-06	3.36E-05		2.16E-05
Iron	8.83E-05	6.46E-05	4.99E-04		3.65E-04
Manganese	1.41E-06	1.32E-06	7.95E-06		7.48E-06
Nickle	2.44E-05	1.60E-05	1.38E-04		9.07E-05
Lead	1.36E-06	9.72E-07	7.69E-06		5.50E-06
Zinc	2.15E-04	1.84E-04	1.22E-03		1.04E-03
Mercury (Total)	5.47E-06	4.00E-06	3.09E-05		2.26E-05
Methyl-Mercury	4.05E-06	4.05E-06	2.29E-05	2.28E-05	2.29E-05
Fluorene	1.51E-08	1.17E-08	8.55E-08		6.61E-08
Phenanthrene	3.36E-08	3.12E-08	1.90E-07		1.77E-07
Anthracene	3.34E-08	2.59E-08	1.89E-07		1.46E-07
C1-phenanthrene + anthracene	3.94E-08	3.23E-08	2.23E-07		1.83E-07
C2-phenanthrene + anthracene	2.44E-08	1.98E-08	1.38E-07		1.12E-07
C3-phenanthrene + anthracene	2.98E-08	2.46E-08	1.69E-07		1.39E-07
C4-phenanthrene + anthracene	5.98E-08	4.49E-08	3.38E-07		2.54E-07
Sum C1:C4-phenanthrene + anthracene	1.54E-07	1.22E-07	8.68E-07		6.87E-07
Fluoranthene	1.57E-08	1.33E-08	8.88E-08		7.52E-08
Pyrene	3.40E-08	2.78E-08	1.92E-07		1.57E-07
Benz(a)anthracene	3.34E-08	3.22E-08	1.89E-07		1.82E-07
Chrysene	3.37E-08	3.19E-08	1.90E-07		1.80E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	1.23E-08	1.13E-08	6.98E-08		6.39E-08
Benzo(e)pyrene	1.09E-08	9.95E-09	6.19E-08		5.63E-08
Benzo(a)pyrene	1.00E-08	7.51E-09	5.66E-08		4.25E-08
Perylene	6.12E-08	5.17E-08	3.46E-07		2.93E-07
Indeno(1,2,3-cd)pyrene	3.47E-09	2.66E-09	1.96E-08		1.50E-08
Dibenz(a,h)anthracene	7.73E-08	6.88E-08	4.37E-07		3.89E-07
Benzo(g,h,i)perylene	7.42E-08	5.19E-08	4.20E-07	1.66E-07	2.94E-07
Sum of measured PAHs	2.53E-07	2.28E-07	1.43E-06		1.29E-06
Sum of PCB Congeners.	2.77E-06	1.30E-06	1.57E-05		7.37E-06
Hexachlorobenzene	8.72E-09	6.33E-09	4.93E-08		3.58E-08
Lindane (gamma-BHC)	1.27E-08	5.86E-09	7.21E-08		3.32E-08
Alpha-chlordane as chlorodane	2.61E-08	1.57E-08	1.48E-07		8.88E-08
Trans-nonachlor	6.16E-08	3.62E-08	3.49E-07		2.05E-07
Heptachlor					
Heptachlor epoxide					
Mirex					
o,p -DDD					
p,p -DDD	4.32E-08	2.86E-08	2.44E-07		1.62E-07
o,p -DDE					
p,p -DDE	4.46E-07	1.78E-07	2.52E-06		1.01E-06
o,p -DDT					
p,p -DDT	9.63E-09	8.33E-09	5.45E-08		4.71E-08
Aldrin					

TABLE 4-2D PHASE II HARBOR AND REFERENCE LOCATIONS
SEAFOOD INTAKES FLOUNDER FILET FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Non-carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Non-carcinogenic Central Tendency using Average Concentration Pseudo-pleuronectes americanus filet flounder flesh	Intake Non-carcinogenic Central Tendency using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh	Intake Non-carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Intake Non-carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh
	mg/kg/day		mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	3.53E-04		2.25E-04	5.98E-04	3.82E-04
Silver	1.45E-05		1.38E-05	2.47E-05	2.33E-05
10% of total Arsenic	4.49E-04		2.45E-04	7.62E-04	4.16E-04
Cadmium	1.82E-06		1.50E-06	3.09E-06	2.54E-06
assume Chromium III	3.19E-05		2.57E-05	5.41E-05	4.35E-05
assume Chromium IV	3.19E-05		2.57E-05	5.41E-05	4.35E-05
Copper	4.61E-05		2.97E-05	7.83E-05	5.03E-05
Iron	6.86E-04		5.02E-04	1.16E-03	8.51E-04
Manganese	1.09E-05		1.03E-05	1.85E-05	1.74E-05
Nickle	1.90E-04		1.25E-04	3.22E-04	2.11E-04
Lead	1.06E-05		7.56E-06	1.79E-05	1.28E-05
Zinc	1.67E-03		1.43E-03	2.84E-03	2.43E-03
Mercury (Total)	4.25E-05		3.11E-05	7.21E-05	5.27E-05
Methyl-Mercury	3.15E-05	2.28E-05	3.15E-05	5.35E-05	5.35E-05
Fluorene	1.18E-07		9.09E-08	1.99E-07	1.54E-07
Phenanthrene	2.61E-07		2.43E-07	4.43E-07	4.12E-07
Anthracene	2.60E-07		2.01E-07	4.40E-07	3.41E-07
C1-phenanthrene + anthracene	3.06E-07		2.51E-07	5.20E-07	4.26E-07
C2-phenanthrene + anthracene	1.90E-07		1.54E-07	3.22E-07	2.61E-07
C3-phenanthrene + anthracene	2.32E-07		1.91E-07	3.93E-07	3.24E-07
C4-phenanthrene + anthracene	4.65E-07		3.49E-07	7.89E-07	5.92E-07
Sum C1:C4-phenanthrene + anthracene	1.19E-06		9.45E-07	2.02E-06	1.60E-06
Fluoranthene	1.22E-07		1.03E-07	2.07E-07	1.75E-07
Pyrene	2.65E-07		2.16E-07	4.49E-07	3.67E-07
Benz(a)anthracene	2.60E-07		2.51E-07	4.40E-07	4.25E-07
Chrysene	2.62E-07		2.48E-07	4.44E-07	4.20E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	9.59E-08		8.78E-08	1.63E-07	1.49E-07
Benzo(e)pyrene	8.51E-08		7.73E-08	1.44E-07	1.31E-07
Benzo(a)pyrene	7.78E-08		5.84E-08	1.32E-07	9.90E-08
Perylene	4.76E-07		4.02E-07	8.07E-07	6.82E-07
Indeno(1,2,3-cd)pyrene	2.70E-08		2.07E-08	4.58E-08	3.51E-08
Dibenz(a,h)anthracene	6.01E-07		5.35E-07	1.02E-06	9.07E-07
Benzo(g,h,i)perylene	5.77E-07		4.04E-07	9.78E-07	6.84E-07
Sum of measured PAHs	1.97E-06		1.77E-06	3.34E-06	3.00E-06
Sum of PCB Congeners.	2.15E-05		1.01E-05	3.65E-05	1.72E-05
Hexachlorobenzene	6.78E-08		4.92E-08	1.15E-07	8.34E-08
Lindane (gamma-BHC)	9.91E-08		4.56E-08	1.68E-07	7.73E-08
Alpha-chlordane as chlorodane	2.03E-07		1.22E-07	3.44E-07	2.07E-07
Trans-nonachlor	4.79E-07		2.81E-07	8.13E-07	4.77E-07
Heptachlor					
Heptachlor epoxide					
Mirex					
o,p -DDD					
p,p -DDD	3.36E-07		2.22E-07	5.69E-07	3.77E-07
o,p -DDE					
p,p -DDE	3.47E-06		1.39E-06	5.88E-06	2.35E-06
o,p -DDT					
p,p -DDT	7.49E-08		6.48E-08	1.27E-07	1.10E-07
Aldrin					

TABLE 4-2E PHASE II HARBOR AND REFERENCE LOCATIONS
SEAFOOD INTAKES FLOUNDER LIVER
FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Intake Carcinogenic Central Tendency using 95% UCL concentration Pseudo-pleuronectes americanus Liver flounder Liver	Intake Carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus Liver flounder Liver	Intake Carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
Aluminum	8.93465E-05	7.86239E-05	0.000298711	0.000262862
Silver	8.64929E-05	5.34078E-05	0.00028917	0.000178557
10% of total Arsenic	2.95198E-05	1.84058E-05	9.86929E-05	6.15358E-05
Cadmium	4.10325E-05	2.52751E-05	0.000137183	8.45018E-05
assume Chromium III	3.93597E-06	3.65099E-06	1.31591E-05	1.22063E-05
assume Chromium IV	3.93597E-06	3.65099E-06	1.31591E-05	1.22063E-05
Copper	0.001033192	0.000614425	0.003454253	0.002054198
Iron	0.011670147	0.009076576	0.039016611	0.030345569
Manganese	0.000102335	6.86499E-05	0.000342136	0.000229516
Nickle	5.94331E-05	3.55847E-05	0.000198702	0.00011897
Zinc	0.00129887	0.001204489	0.00434249	0.004026948
Mercury (Total)	2.41396E-06	2.00455E-06	8.07055E-06	6.70179E-06
Methyl-Mercury	1.02183E-06	1.02183E-06	3.41628E-06	3.41628E-06
Fluorene	4.12851E-08	3.58839E-08	1.38028E-07	1.1997E-07
Phenanthrene	1.02013E-07	8.9111E-08	3.41057E-07	2.97923E-07
Anthracene	2.95526E-08	2.76525E-08	9.88028E-08	9.24501E-08
C1-phenanthrene + anthracene	1.3109E-07	8.34998E-08	4.38272E-07	2.79163E-07
C2-phenanthrene + anthracene	1.35034E-07	8.87667E-08	4.51459E-07	2.96772E-07
C3-phenanthrene + anthracene	2.19154E-07	1.2071E-07	7.32695E-07	4.03566E-07
C4-phenanthrene + anthracene	1.66026E-07	9.93879E-08	5.55072E-07	3.32282E-07
Sum C1:C4-phenanthrene + anthracene	6.51305E-07	3.92364E-07	2.1775E-06	1.31178E-06
Fluoranthene	7.48429E-08	4.74926E-08	2.50221E-07	1.58781E-07
Pyrene	5.60558E-08	5.0395E-08	1.87411E-07	1.68485E-07
Benz(a)anthracene	3.2553E-08	2.93944E-08	1.08834E-07	9.82737E-08
Chrysene	4.03E-08	3.2992E-08	1.34734E-07	1.10302E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	3.80753E-08	3.35509E-08	1.27297E-07	1.1217E-07
Benzo(e)pyrene	4.58817E-08	3.7726E-08	1.53395E-07	1.26129E-07
Benzo(a)pyrene	3.24304E-07	1.30143E-07	1.08424E-06	4.35105E-07
Perylene	5.47886E-08	3.89553E-08	1.83174E-07	1.30239E-07
Indeno(1,2,3-cd)pyrene	5.42549E-08	4.26221E-08	1.8139E-07	1.42498E-07
Dibenz(a,h)anthracene	6.26216E-08	3.65673E-08	2.09362E-07	1.22255E-07
Benzo(g,h,i)perylene	7.17371E-08	6.13086E-08	2.39837E-07	2.04972E-07
Sum of measured PAHs	1.24131E-06	7.97685E-07	4.15005E-06	2.66689E-06
Sum of Congeners.	2.92266E-05	2.25418E-05	9.77129E-05	7.53638E-05
Hexachlorobenzene	5.88929E-08	4.53232E-08	1.96896E-07	1.51528E-07
Lindane (gamma-BHC)	6.1116E-08	3.33512E-08	2.04328E-07	1.11502E-07
Alpha-chlordane as chlorodane	3.20909E-07	2.22467E-07	1.07289E-06	7.43769E-07
Trans-nonachlor	9.25742E-07	6.43447E-07	3.09502E-06	2.15123E-06
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	5.71631E-07	4.94528E-07	1.91112E-06	1.65335E-06
o,p -DDE				
p,p -DDE	1.60594E-06	1.37639E-06	5.36911E-06	4.60166E-06
o,p -DDT				
p,p -DDT	1.61417E-07	1.25889E-07	5.39664E-07	4.20883E-07
Aldrin				

TABLE 4-2E PHASE II HARBOR AND REFERENCE LOCATIONS
SEAFOOD INTAKES FLOUNDER LIVER
FOR CANCER AND NON-CANCER CALCULATIONS

Chemical of Potential Concern	Intake Non-carcinogenic Central tendency using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Intake Non-carcinogenic Central Tendency using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver	Intake Non-carcinogenic Central Tendency using Average Concentration Pseudo-pleuronectes americanus liver flounder liver	Intake Non-carcinogenic High End using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Intake Non-carcinogenic High End using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver
	mg/kg/day	mg/kg/day		mg/kg/day	mg/kg/day
Aluminum	0.000693435	0.000610215		0.000693435	0.000610215
Silver	0.000671288	0.000414508		0.000671288	0.000414508
10% of total Arsenic	0.000229109	0.000142851		0.000229109	0.000142851
Cadmium	0.000318461	0.000196165		0.000318461	0.000196165
assume Chromium III	3.05478E-05	2.83361E-05		3.05478E-05	2.83361E-05
assume Chromium IV	3.05478E-05	2.83361E-05		3.05478E-05	2.83361E-05
Copper	0.008018802	0.004768673		0.008018802	0.004768673
Iron	0.090574276	0.070445071		0.090574276	0.070445071
Manganese	0.000794243	0.000532806		0.000794243	0.000532806
Nickle	0.000461272	0.00027618		0.000461272	0.00027618
Zinc	0.010080779	0.009348273		0.010080779	0.009348273
Mercury (Total)	1.87352E-05	1.55577E-05		1.87352E-05	1.55577E-05
Methyl-Mercury	7.93065E-06	7.93065E-06	5.77457E-06	7.93065E-06	7.93065E-06
Fluorene	3.20422E-07	2.78502E-07		3.20422E-07	2.78502E-07
Phenanthrene	7.91739E-07	6.91607E-07		7.91739E-07	6.91607E-07
Anthracene	2.29364E-07	2.14616E-07		2.29364E-07	2.14616E-07
C1-phenanthrene + anthracene	1.01742E-06	6.48058E-07		1.01742E-06	6.48058E-07
C2-phenanthrene + anthracene	1.04803E-06	6.88936E-07		1.04803E-06	6.88936E-07
C3-phenanthrene + anthracene	1.7009E-06	9.36851E-07		1.7009E-06	9.36851E-07
C4-phenanthrene + anthracene	1.28856E-06	7.71368E-07		1.28856E-06	7.71368E-07
Sum C1:C4-phenanthrene + anthracene	5.05491E-06	3.04521E-06		5.05491E-06	3.04521E-06
Fluoranthene	5.8087E-07	3.68599E-07		5.8087E-07	3.68599E-07
Pyrene	4.3506E-07	3.91125E-07		4.3506E-07	3.91125E-07
Benz(a)anthracene	2.5265E-07	2.28135E-07		2.5265E-07	2.28135E-07
Chrysene	3.12776E-07	2.56057E-07		3.12776E-07	2.56057E-07
Sum of benzofluoranthenes as benzo(b) fluoranthene	2.9551E-07	2.60395E-07		2.9551E-07	2.60395E-07
Benzo(e)pyrene	3.56096E-07	2.92799E-07		3.56096E-07	2.92799E-07
Benzo(a)pyrene	2.51699E-06	1.01006E-06		2.51699E-06	1.01006E-06
Perylene	4.25225E-07	3.0234E-07		4.25225E-07	3.0234E-07
Indeno(1,2,3-cd)pyrene	4.21083E-07	3.30798E-07		4.21083E-07	3.30798E-07
Dibenz(a,h)anthracene	4.86018E-07	2.83806E-07		4.86018E-07	2.83806E-07
Benzo(g,h,i)perylene	5.56765E-07	4.75828E-07	3.10136E-07	5.56765E-07	4.75828E-07
Sum of measured PAHs	9.63405E-06	6.19099E-06		9.63405E-06	6.19099E-06
Sum of Congeners.	0.000226834	0.000174952		0.000226834	0.000174952
Hexachlorobenzene	4.57079E-07	3.51762E-07		4.57079E-07	3.51762E-07
Lindane (gamma-BHC)	4.74334E-07	2.58845E-07		4.74334E-07	2.58845E-07
Alpha-chlordane as chlorodane	2.49064E-06	1.72661E-06		2.49064E-06	1.72661E-06
Trans-nonachlor	7.18486E-06	4.99392E-06		7.18486E-06	4.99392E-06
Heptachlor					
Heptachlor epoxide					
Mirex					
o,p -DDD					
p,p -DDD	4.43654E-06	3.83813E-06		4.43654E-06	3.83813E-06
o,p -DDE					
p,p -DDE	1.2464E-05	1.06824E-05		1.2464E-05	1.06824E-05
o,p -DDT					
p,p -DDT	1.25279E-06	9.7705E-07		1.25279E-06	9.7705E-07
Aldrin					

TABLE 5-1A PHASE II HARBOR AND REFERENCE LOCATIONS
ESTIMATED CANCER AND NON-CANCER RISK FOR MEAT FROM LOBSTER TAIL AND CLAW

Chemical of Potential Concern	Carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Carcinogenic High End Estimated Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Carcinogenic High End Estimate Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	2.52E-06	1.61E-06	7.28E-05	4.66E-05
Cadmium				
assume Chromium III				
assume Chromium IV				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (Inorganic)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	8.49E-09	3.86E-09	2.45E-07	1.11E-07
Chrysene	1.28E-10	6.00E-11	3.71E-09	1.73E-09
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	1.14E-07	5.33E-08	3.29E-06	1.54E-06
Perylene				
Indeno(1,2,3-cd)pyrene	7.32E-09	3.21E-09	2.11E-07	9.28E-08
Dibenz(a,h)anthracene	7.20E-09	4.50E-09	2.08E-07	1.30E-07
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of PCB Congeners.	1.43E-07	1.03E-07	4.14E-06	2.98E-06
Hexachlorobenzene	4.36E-10	3.43E-10	1.26E-08	9.90E-09
Lindane (gamma-BHC)	1.61E-09	1.02E-09	4.65E-08	2.94E-08
Alpha-chlordane as chlorodane	3.13E-10	2.38E-10	9.03E-09	6.89E-09
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	1.54E-10	1.05E-10	4.45E-09	3.03E-09
o,p -DDE				
p,p -DDE	1.04E-09	7.96E-10	3.01E-08	2.30E-08
o,p -DDT				
p,p -DDT	7.83E-11	6.92E-11	2.26E-09	2.00E-09
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	2.81E-06	1.78E-06	8.10E-05	5.15E-05

TABLE 5-1A PHASE II HARBOR AND REFERENCE LOCATIONS
ESTIMATED CANCER AND NON-CANCER RISK FOR MEAT FROM LOBSTER TAIL AND CLAW

Chemical of Potential Concern	Non-carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Non-carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster	Non-carcinogenic High End Risk Using Maximum Concentration Homarus americanus tail/claw Adult Lobster	Non-carcinogenic High End Risk Using 95% UCL Concentration Homarus americanus tail/claw Adult Lobster
	Intake/RfD	Intake/Rfd	Intake/Rfd	Intake/Rfd
Aluminum	1.06E-05	8.60E-06	9.19E-05	7.44E-05
Silver	7.16E-04	4.73E-04	6.20E-03	4.09E-03
10% of total Arsenic	4.35E-02	2.78E-02	3.77E-01	2.41E-01
Cadmium	2.67E-04	1.58E-04	2.31E-03	1.37E-03
assume Chromium III	*	*	*	*
assume Chromium IV				
Copper	4.04E-03	2.74E-03	3.50E-02	2.37E-02
Iron				
Manganese	8.16E-05	4.16E-05	7.07E-04	3.60E-04
Nickle	4.71E-05	4.49E-05	4.07E-04	3.88E-04
Lead				
Zinc	2.13E-03	1.79E-03	1.85E-02	1.55E-02
Mercury (Inorganic)	2.40E-02	1.25E-02	2.08E-01	1.08E-01
Methyl-Mercury	6.77E-02	4.84E-02	5.86E-01	4.19E-01
Fluorene	5.19E-07	2.38E-07	4.49E-06	2.06E-06
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	1.93E-05	6.64E-06	1.67E-04	5.74E-05
Pyrene	2.78E-05	1.13E-05	2.40E-04	9.78E-05
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene	2.38E-05	1.23E-05	2.06E-04	1.06E-04
Sum of measured PAHs				
Sum of PCB Congeners.				
Hexachlorobenzene	2.65E-06	2.08E-06	2.29E-05	1.80E-05
Lindane (gamma-BHC)	3.21E-05	2.03E-05	2.77E-04	1.76E-04
Alpha-chlordane as chlorodane	3.11E-05	2.38E-05	2.70E-04	2.06E-04
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	3.58E-06	3.16E-06	3.10E-05	2.74E-05
Aldrin				
	Non-cancer risk Hazard Quotient not adjusted for target organ	Non-cancer risk Hazard Quotient not adjusted for target organ	Non-cancer risk Hazard Quotient not adjusted for target organ	Non-cancer risk Hazard Quotient not adjusted for target organ
	0.142705	0.094140	1.235074	0.814754

TABLE 5-1B PHASE II HARBOR AND REFERENCE LOCATIONS
ESTIMATED CANCER AND NON-CANCER RISK FOR LOBSTER HEPATOPANCREAS (TOMALLEY)

Chemical of Potential Concern	Carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic High End Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Carcinogenic High End Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	9.85E-07	6.04E-07	2.85E-05	1.75E-05
Cadmium				
assume Chromium III				
assume Chromium IV				
Copper				
Iron				
Manganese				
Nickle				
Zinc				
Mercury (Inorganic)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	4.11E-08	1.09E-08	1.19E-06	3.14E-07
Chrysene	6.41E-10	2.01E-10	1.85E-08	5.82E-09
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	7.74E-07	2.81E-07	2.24E-05	8.14E-06
Perylene				
Indeno(1,2,3-cd)pyrene	1.73E-08	5.32E-09	5.01E-07	1.54E-07
Dibenz(a,h)anthracene	3.37E-08	1.11E-08	9.74E-07	3.20E-07
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of Congeners.	2.79E-06	2.35E-06	8.05E-05	6.79E-05
Hexachlorobenzene	5.75E-09	4.23E-09	1.66E-07	1.22E-07
Lindane (gamma-BHC)				
Alpha-chlordane as chlorodane	7.73E-09	4.95E-09	2.23E-07	1.43E-07
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	9.07E-09	4.54E-09	2.62E-07	1.31E-07
o,p -DDE				
p,p -DDE	7.09E-08	5.54E-08	2.05E-06	1.60E-06
o,p -DDT				
p,p -DDT	6.16E-09	3.30E-09	1.78E-07	9.55E-08
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	4.74E-06	3.33E-06	1.37E-04	9.64E-05

TABLE 5-1B PHASE II HARBOR AND REFERENCE LOCATIONS
ESTIMATED CANCER AND NON-CANCER RISK FOR LOBSTER HEPATOPANCREAS (TOMALLEY)

Chemical of Potential Concern	Non-carcinogenic Central Tendency Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic Central Tendency Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic High End Risk Using Maximum Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster	Non-carcinogenic High End Risk Using 95% UCL Concentration Homarus americanus hepatopancreas (Tomalley) Adult Lobster
	Intake/RfD	Intake/Rfd	Intake/RfD	Intake/Rfd
Aluminum	0.000034	0.000011	0.000291	0.000093
Silver	0.000507	0.000321	0.004402	0.002790
10% of total Arsenic	0.017000	0.010434	0.147508	0.090535
Cadmium	0.088504	0.047326	0.767961	0.410653
assume Chromium III	*	*	*	*
assume Chromium IV				
Copper	0.057543	0.018159	0.499310	0.157570
Iron				
Manganese	0.000090	0.000075	0.000778	0.000650
Nickle	0.000324	0.000145	0.002815	0.001263
Zinc	0.000569	0.000406	0.004937	0.003526
Mercury (Inorganic)	0.003805	0.001682	0.033016	0.014596
Methyl-Mercury	0.002658	0.002450	0.023066	0.021262
Fluorene	0.000002	0.000001	0.000016	0.000008
Phenanthrene	0.000197	0.000062	0.001705	0.000538
Anthracene	0.000001	0.000000	0.000012	0.000003
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	0.000050	0.000016	0.000430	0.000136
Pyrene	0.000041	0.000013	0.000360	0.000109
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of Congeners.				
Hexachlorobenzene	0.000035	0.000026	0.000303	0.000223
Lindane (gamma-BHC)	0.000034	0.000028	0.000298	0.000246
Alpha-chlordane as chlorodane	0.000770	0.000493	0.006679	0.004280
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	0.000282	0.000151	0.002444	0.001309
Aldrin				
	Non-cancer risk Hazard Quotient	Non-cancer risk Hazard Quotient	Non-cancer risk Hazard Quotient	Non-cancer risk Hazard Quotient
	0.172445	0.081800	1.496331	0.709790

TABLE 5-1C PHASE II HARBOR AND REFERENCE LOCATIONS ESTIMATED CANCER AND NON CANCER RISK FOR MUSSELS

Chemical of Potential Concern	Estimated Carcinogenic Risk for Central Tendency using Maximum concentration Mytilus edulis mussel indigenous	Estimated Carcinogenic Risk for Central Tendency using 95% UCL Mytiluslus edulis mussel indigenous	Estimated Carcinogenic Risk for High End Assumptions Using Maximum Concentration Mytilus edulis mussel indigenous	Estimated Carcinogenic Risk for High End Assumptions using 95% UCL Mytiluslus edulis mussel indigenous
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	1.79E-05	1.40E-05	1.01E-04	7.94E-05
Cadmium				
assume Chromium III				
assume Chromium IV				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (Total)				
Methyl-Mercury (no values)				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	9.88E-06	1.02E-06	5.59E-05	5.77E-06
Chrysene	7.60E-08	9.02E-09	4.30E-07	5.10E-08
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	2.93E-05	3.70E-06	1.66E-04	2.09E-05
Perylene				
Indeno(1,2,3-cd)pyrene	1.01E-06	2.57E-07	5.69E-06	1.46E-06
Dibenz(a,h)anthracene	3.45E-06	1.38E-06	1.95E-05	7.81E-06
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of PCB Congeners.	1.29E-05	4.40E-06	7.27E-05	2.49E-05
Hexachlorobenzene	1.25E-07	6.71E-08	7.06E-07	3.80E-07
Lindane (gamma-BHC)	9.02E-09	8.79E-09	5.10E-08	4.97E-08
Alpha-chlordane as chlorodane	4.75E-08	1.78E-08	2.69E-07	1.00E-07
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide	1.32E-07	1.25E-07	7.45E-07	7.06E-07
Mirex				
o,p -DDD				
p,p -DDD	3.84E-08	1.35E-08	2.17E-07	7.62E-08
o,p -DDE				
p,p -DDE	6.55E-08	3.03E-08	3.70E-07	1.71E-07
o,p -DDT				
p,p -DDT	9.44E-08	4.51E-08	5.34E-07	2.55E-07
Aldrin	8.93E-08	8.68E-08	5.05E-07	4.91E-07
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	7.51E-05	2.52E-05	4.25E-04	1.43E-04

TABLE 5-1c PHASE II HARBOR AND REFERENCE LOCATIONS
ESTIMATED CANCER AND NON CANCER RISK FOR MUSSELS

Chemical of Potential Concern	Estimated Non-Carcinogenic Risk for Central Tendency using Maximum concentration Mytilus edulis mussel indigenous	Estimated Non-Carcinogenic Central Tendency using 95% UCL Mytilusius edulis mussel indigenous	Estimated Non-carcinogenic Risk for High End using Maximum concentration Mytilus edulis mussel indigenous	Estimated Non-Carcinogenic Risk for High End assumptions using 95% UCL Mytilusius edulis mussel indigenous
	Intake/RfD	Intake/Rfd	Intake/RfD	Intake/Rfd
Aluminum	0.072887	0.037531	0.123612	0.063651
Silver	0.011202	0.004931	0.018997	0.008363
10% of total Arsenic	0.309971	0.242667	0.525694	0.411550
Cadmium	0.612294	0.348695	1.038417	0.591368
assume Chromium III	*	*	*	*
assume Chromium IV				
Copper	0.061290	0.028599	0.103944	0.048502
Iron				
Manganese	0.521890	0.125612	0.885098	0.213032
Nickle	0.416472	0.147261	0.706314	0.249746
Lead				
Zinc	0.051125	0.027871	0.086705	0.047268
Mercury (Total)	1.115091	0.141580	1.891134	0.240113
Methyl-Mercury (no values)				
Fluorene	0.000654	0.000082	0.001109	0.000140
Phenanthrene	0.052008	0.004875	0.088203	0.008268
Anthracene	0.000074	0.000011	0.000125	0.000019
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	0.008060	0.000798	0.013669	0.001353
Pyrene	0.007218	0.000431	0.012242	0.012242
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,I)perylene	0.002394	0.000609	0.004059	0.001033
Sum of measured PAHs				
Sum of PCB Congeners.				
Hexachlorobenzene	0.000758	0.000408	0.001286	0.000691
Lindane (gamma-BHC)	0.000180	0.000175	0.000305	0.000297
Alpha-chlordane as chlorodane	0.004733	0.001771	0.008026	0.003003
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide	0.008659	0.008198	0.014685	0.013904
Mirex	0.000136	0.000132	0.000231	0.000223
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	0.004319	0.002062	0.007325	0.003497
Aldrin	0.001362	0.001323	0.002310	0.002243
	Non-cancer risk Hazard Quotient not adjusted for target organ	Non-cancer risk Hazard Quotient not adjusted for target organ	Non-cancer risk Hazard Quotient not adjusted for target organ	Non-cancer risk Hazard Quotient not adjusted for target organ
	3.262776	1.125622	5.533492	1.920505

TABLE 5-1D PHASE II HARBOR AND REFERENCE LOCATIONS
ESTIMATED CANCER AND NON-CANCER RISK FOR FLOUNDER FILET

Chemical of Potential Concern	Estimated Carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Estimated Carcinogenic Risk for Central Tendency using 95% UCL concentration Pseudo-pleuronectes americanus filet flounder flesh	Estimated Carcinogenic Risk for High-End assumptions using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Estimated Carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	8.67E-05	4.73E-05	4.90E-04	2.68E-04
Cadmium				
assume Chromium III				
assume Chromium IV				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (Total)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	2.44E-08	2.35E-08	1.38E-07	1.33E-07
Chrysene	2.46E-10	2.33E-10	1.39E-09	1.32E-09
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	7.30E-08	5.48E-08	4.13E-07	3.10E-07
Perylene				
Indeno(1,2,3-cd)pyrene	2.54E-09	1.94E-09	1.43E-08	1.10E-08
Dibenz(a,h)anthracene	5.64E-07	5.02E-07	3.19E-06	2.84E-06
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of PCB Congeners.	2.13E-05	1.00E-05	1.21E-04	5.68E-05
Hexachlorobenzene	1.39E-08	1.01E-08	7.89E-08	5.73E-08
Lindane (gamma-BHC)	1.66E-08	7.62E-09	9.37E-08	4.31E-08
Alpha-chlordane as chlorodane	3.40E-08	2.04E-08	1.92E-07	1.15E-07
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	1.04E-08	6.87E-09	5.86E-08	3.88E-08
o,p -DDE				
p,p -DDE	1.52E-07	6.06E-08	8.58E-07	3.43E-07
o,p -DDT				
p,p -DDT	3.28E-09	2.83E-09	1.85E-08	1.60E-08
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	1.09E-04	5.80E-05	6.16E-04	3.28E-04

TABLE 5-1D PHASE II HARBOR AND REFERENCE LOCATIONS
ESTIMATED CANCER AND NON-CANCER RISK FOR FLOUNDER FILET

Chemical of Potential Concern	Estimated Non-carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Estimated Non-carcinogenic Risk for Central Tendency assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh	Estimated Non-carcinogenic Risk for High End assumptions using Maximum Concentration for Pseudo-pleuronectes americanus filet flounder flesh	Estimated Non-carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus filet flounder flesh
	Hazard Quotient Intake/RfD	Hazard Quotient Intake/RfD	Hazard Quotient Intake/RfD	Hazard Quotient Intake/RfD
Aluminum	3.53E-04	2.25E-04	5.98E-04	3.82E-04
Silver	2.91E-03	2.75E-03	4.93E-03	4.67E-03
10% of total Arsenic	1.50E+00	8.18E-01	2.54E+00	1.39E+00
Cadmium	3.64E-03	2.99E-03	6.18E-03	5.07E-03
assume Chromium III				
assume Chromium IV				
Copper	1.15E-03	7.42E-04	1.96E-03	1.26E-03
Iron				
Manganese	7.81E-05	7.35E-05	1.32E-04	1.25E-04
Nickle	9.50E-03	6.23E-03	1.61E-02	1.06E-02
Lead				
Zinc	5.58E-03	4.77E-03	9.46E-03	8.09E-03
Mercury (Total)	1.42E-01	1.04E-01	2.40E-01	1.76E-01
Methyl-Mercury	3.15E-01	2.28E-01	5.35E-01	5.35E-01
Fluorene	2.94E-06	2.27E-06	4.98E-06	3.85E-06
Phenanthrene	6.54E-05	6.07E-05	1.11E-04	1.03E-04
Anthracene	8.66E-07	6.71E-07	1.47E-06	1.14E-06
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	3.05E-06	2.58E-06	5.17E-06	4.38E-06
Pyrene	8.82E-06	7.22E-06	1.50E-05	1.22E-05
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene	1.44E-04	1.01E-04	2.45E-04	1.71E-04
Sum of measured PAHs				
Sum of PCB Congeners.				
Hexachlorobenzene				
Lindane (gamma-BHC)	3.30E-04	1.52E-04	5.60E-04	2.58E-04
Alpha-chlordane as chlorodane	3.38E-03	2.04E-03	5.74E-03	3.45E-03
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	1.50E-04	1.30E-04	2.54E-04	2.20E-04
Aldrin				
	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ
	1.982345	1.169313	3.361949	2.131451

TABLE 5-1E PHASE II HARBOR AND REFERENCE LOCATIONS
ESTIMATED CA ER AND NON-CANCER RISK FOR FL DER LIVER

Chemical of Potential Concern	Estimated Carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Estimated Carcinogenic Risk for Central Tendency using 95% UCL concentration Pseudo-pleuronectes americanus liver flounder liver	Estimated Carcinogenic Risk for High End assumptions using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Estimated Carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver
	Intake * CSF	Intake * CSF	Intake * CSF	Intake * CSF
Aluminum				
Silver				
10% of total Arsenic	4.42796E-05	2.76087E-05	0.000148039	9.23038E-05
Cadmium				
assume Chromium III				
assume Chromium IV				
Copper				
Iron				
Manganese				
Nickle				
Lead				
Zinc				
Mercury (Total)				
Methyl-Mercury				
Fluorene				
Phenanthrene				
Anthracene				
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene				
Pyrene				
Benz(a)anthracene	2.37637E-08	2.14579E-08	7.94486E-08	7.17398E-08
Chrysene	2.9419E-10	2.40841E-10	9.83561E-10	8.05201E-10
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene	2.36742E-06	9.50043E-07	7.91496E-06	3.17626E-06
Perylene				
Indeno(1,2,3-cd)pyrene	3.96061E-08	3.11141E-08	1.32414E-07	1.04023E-07
Dibenz(a,h)anthracene	4.57137E-07	2.66941E-07	1.52834E-06	8.92461E-07
Benzo(g,h,i)perylene				
Sum of measured PAHs				
Sum of PCB Congeners.	0.000225045	0.000173572	0.00075239	0.000580301
Hexachlorobenzene	9.42286E-08	7.25171E-08	3.15033E-07	2.42445E-07
Lindane (gamma-BHC)				
Alpha-chlordane as chlorodane	4.17182E-07	2.89207E-07	1.39476E-06	9.669E-07
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD	1.37191E-07	1.18687E-07	4.5867E-07	3.96803E-07
o,p -DDE				
p,p -DDE	5.4602E-07	4.67972E-07	1.8255E-06	1.56456E-06
o,p -DDT				
p,p -DDT	5.48819E-08	4.28023E-08	1.83486E-07	1.431E-07
Aldrin				
	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)	Estimated Cancer Risk using sum of individual risk (EPA)
	2.73E-04	2.03E-04	9.14E-04	6.80E-04

Intake factor for central tendency = highend for non-cancer

TABLE 5-1E PHASE II HARBOR AND REFERENCE LOCATIONS
ESTIMATED CA[illegible]ER AND NON-CANCER RISK FOR FL[illegible]NDER LIVER

Chemical of Potential Concern	Estimated Non-carcinogenic Risk for Central Tendency Assumptions using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Estimated Non-carcinogenic Risk for Central Tendency assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver	Estimated Non-carcinogenic Risk for High End assumptions using Maximum Concentration for Pseudo-pleuronectes americanus liver flounder liver	Estimated Non-carcinogenic Risk for High End Assumptions using 95% UCL Concentration Pseudo-pleuronectes americanus liver flounder liver
	Intake/RfD	Intake/Rfd	Intake/Rfd	Intake/Rfd
Aluminum	0.000693435	0.000610215	0.000693435	0.000610215
Silver	0.134257654	0.082901632	0.134257654	0.082901632
10% of total Arsenic	0.763695413	0.476170169	0.763695413	0.476170169
Cadmium	0.636921974	0.392329643	0.636921974	0.392329643
assume Chromium III	*	*	*	*
assume Chromium IV				
Copper	0.200470046	0.119216837	0.200470046	0.119216837
Iron				
Manganese	0.005673166	0.003805754	0.005673166	0.003805754
Nickle	0.023063601	0.013808981	0.023063601	0.013808981
Lead				
Zinc	0.033602598	0.03116091	0.033602598	0.03116091
Mercury (Total)	0.0624507	0.05185911	0.0624507	0.05185911
Methyl-Mercury	0.0793065	0.05774574	0.0793065	0.0793065
Fluorene	8.01055E-06	6.96255E-06	8.01055E-06	6.96255E-06
Phenanthrene	0.000197935	0.000172902	0.000197935	0.000172902
Anthracene	7.64546E-07	7.15388E-07	7.64546E-07	7.15388E-07
C1-phenanthrene + anthracene				
C2-phenanthrene + anthracene				
C3-phenanthrene + anthracene				
C4-phenanthrene + anthracene				
Sum C1:C4-phenanthrene + anthracene				
Fluoranthene	1.45217E-05	9.21497E-06	1.45217E-05	9.21497E-06
Pyrene	1.4502E-05	1.30375E-05	1.4502E-05	1.30375E-05
Benz(a)anthracene				
Chrysene				
Sum of benzofluoranthenes as benzo(b) fluoranthene				
Benzo(e)pyrene				
Benzo(a)pyrene				
Perylene				
Indeno(1,2,3-cd)pyrene				
Dibenz(a,h)anthracene				
Benzo(g,h,i)perylene	0.000139191	0.000118957	0.000139191	0.000118957
Sum of measured PAHs				
Sum of PCB Congeners.				
Hexachlorobenzene	0.000571349	0.000439703	0.000571349	0.000439703
Lindane (gamma-BHC)	0.001581112	0.000862817	0.001581112	0.000862817
Alpha-chlordane as chlorodane	0.041510627	0.028776776	0.041510627	0.028776776
Trans-nonachlor				
Heptachlor				
Heptachlor epoxide				
Mirex				
o,p -DDD				
p,p -DDD				
o,p -DDE				
p,p -DDE				
o,p -DDT				
p,p -DDT	0.002505582	0.001954101	0.002505582	0.001954101
Aldrin				
	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ	Non-cancer risk Hazard Index, Sum of Hazard Quotients, not adjusted for Target Organ
	1.986679	1.261964	1.986679	1.283525

Intake factor for central tendency = highend for non-cancer

TABLE 6.0 PHASE II HARBOR AND REFERENCE LOCATIONS ACCEPTABLE SEAFOOD CONSUMPTION RATES

		ESTIMATED NUMBER OF MEALS		ESTIMATED NUMBER OF MEALS		
MAXIMUM CONCENTRATION BASED SERVINGS PER YEAR (10^{-4} CANCER RISK)						
SEAFOOD	CENTRAL TENDENCY SERVING SIZE (oz)	Central Tendency (9 years)[1]	HIGH END SERVING SIZE (oz)	High End (30 years)[1]		
Lobster (tail and claw) Meal	3.351	21.4	3.351	6.4		
Lobster (TOMALLEY) Meal	0.670	12.7	0.670	3.8		
Lobster (tail, claw, tomalley) Meal	4.021	8.0	4.021	2.4		
Mussel Meal	8.000	6.6	8.000	2.0		
Flounder Filet Meal	8.000	4.6	8.000	1.4		
Flounder Liver Meal	0.670	12.8	0.670	3.8		
Flounder Liver And Filet Meal	8.670	1.9	8.670	0.5		
AVERAGE (95% UCL OF MEAN ASSUMING NORMAL DISTRIBUTION)			CONCENTRATION BASED SERVINGS PER YEAR (10^{-4} CANCER RISK)			
SEAFOOD	CENTRAL TENDENCY SERVING SIZE (oz)	Central Tendency (9 years)[1]	HIGH END SERVING SIZE (oz)	High End (30 years)[1]		
Lobster (tail and claw) Meal	3.351	33.6	3.351	10.1		
Lobster (TOMALLEY) Meal	0.670	18.0	0.670	5.4		
Lobster (tail, claw, tomalley) Meal	4.021	11.7	4.021	3.5		
Mussel Meal	8.000	19.6	8.000	6.0		
Flounder Filet Meal	8.000	8.51	8.000	2.6		
Flounder Liver Meal	0.670	17.2	0.670	5.1		
Flounder Filet/Liver Meal	8.670	2.8	8.670	1.0		