Table 1. Hazardous Air Pollutant Screening Levels
(Deep Water Horizon Spill Air Toxics Screening)

				Chronic Inhalation Toxicity Values						Primary Screen for Intermed. Exposure		Acute MRL	Int. MRL	AEGL Acute 1hr Exposure		AEGL Acute 8hr Exposure	
				NONCANCER			CANCER			Screening	Source	1-14 day	1yr	1hr Level	Source	8hr Level	Source
CHEMICAL NAME	CAS NO.	HAP NO.	IARC WOE	*RfC mg/m3	*RfC ug/m3	SOURCE	EPA WOE	*IUR 1/(ug/m3)	SOURCE	Conc. (ug/m3)	Toxicity Data Souce	Conc. (ug/m3)	Conc. (ug/m3)	AEGL Conc. (ug/m3)	See Footer	AEGL Conc. (ug/m3)	See Footer
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6	107		5	5000	IRIS	Inl			3,819.4	Inter. MRL	11,000.0	3819.36	1,300,000	AEGL-1	1,300,000	AEGL-1
1,1,2,2-Tetrachloroethane	79-34-5	149	3				C	5.8E-05	IRIS	120.7	Risk10-4						
1,1,2-Trichloroethane	79-00-5	158	3	0.4	400	P-CAL	C	1.6E-05	IRIS	437.5	Risk10-4						
1,1-Dichloroethane (Ethylidene dichloride)	75-34-3	86		0.5	500	HEAST	C	1.6E-06	CAL	4,375.0	Risk10-4						
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	168		0.2	200	IRIS	SE			79.3	Inter. MRL		79.30				
1,2,4-Trichlorobenzene	120-82-1	157		0.2	200	HEAST	D			2,000.0	HQ=10						
1,2-Dibromoethane (Ethylene dibromide)	106-93-4	80	2A	0.009	9	IRIS	LH	6.0E-04	IRIS	11.7	Risk10-4			130,000	AEGL-1	35,000	AEGL-1
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	WP Entry		0.2	200	HEAST				2,000.0	HQ=10						
1,2-Dichloroethane (Ethylene dichloride)	107-06-2	81	2B	2.4	2400	ATSDR	B2	2.6E-05	IRIS	2,428.5	Inter. MRL		2428.46				
1,2-Dichloropropane	78-87-5	141		0.004	4	IRIS	B2	1.9E-05	Conv. Oral	32.3	Inter. MRL	230.0	32.35				
1,3-Butadiene	106-99-0	23	2A	0.002	2	IRIS	CH	3.0E-05	IRIS	221.2	Acute MRL	221.2		1,500,000	AEGL-1	1,500,000	AEGL-1
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	53	2B	0.8	800	IRIS	C	1.1E-05	CAL	1,202.5	Inter. MRL	12,000.0	1202.48				
1,4-Dioxane	123-91-1	72	2B	3.6	3600	D-ATSDR	B2	7.7E-06	CAL	3,603.5	Inter. MRL	7,200.0	3603.52	61,000	AEGL-1	61,000	AEGL-1
3-Chloropropene (Allyl chloride)	107-05-1	10	3	0.001	1	IRIS	C	6.0E-06	CAL	10.0	HQ=10			8,800	AEGL-1	8,800	AEGL-1
Acetone	67-64-1	WP Entry		31	31000	ATSDR				30,881.0	Inter. MRL	62,000.0	30880.98	699,387	AEGL-3	208,589	AEGL-3
Acrylonitrile	107-13-1	9	2A	0.002	2	IRIS	B1	6.8E-05	IRIS	220.0	Acute MRL	220.0		10,000	AEGL-1	10,000	AEGL-1
Benzene	71-43-2	15	1	0.03	30	IRIS	CH	7.8E-06	IRIS	19.2	Inter. MRL	29.0	19.169	170,000	AEGL-1	29,000	AEGL-1
Benzyl chloride	100-44-7	18	2B				B2	4.9E-05	CAL	142.9	Risk10-4						
Bromodichloromethane	75-27-4	WP Entry						3.7E-05	CAL	189.2	Risk10-4						
Bromoform	75-25-2	22	3				B2	1.1E-06	IRIS	6,363.6	Risk10-4						
Bromomethane (Methyl bromide)	74-83-9	105		0.005	5	IRIS	D			194.1	Inter. MRL	190.0	194.15	820,000	AEGL-2	260,000	AEGL-2
Carbon disulfide	75-15-0	28		0.7	700	IRIS				7,000.0	HQ=10			40,000	AEGL-1	21,000	AEGL-1
Carbon Tetrachloride	56-23-5	29	2B	0.1	100	IRIS	LH	6.0E-06	IRIS	188.7	Inter. MRL		188.74	280,000	AEGL-1	120,000	AEGL-1
Chlorobenzene	108-90-7	37		1	1000	CAL	D			10,000.0	HQ=10			46,000	AEGL-1	46,000	AEGL-1
Chloroethane (Ethyl chloride)	75-00-3	79		10	10000	IRIS				40,000.0	Acute MRL	40,000.0					
Chloroform	67-66-3	39	2B	0.098	98	ATSDR	LH			244.1	Inter. MRL	490.0	244.13	310,000	AEGL-2	140,000	AEGL-2
Chloromethane (Methyl chloride)	74-87-3	106		0.09	90	IRIS	Inl			413.0	Inter. MRL	1,000.0	412.99	1,900,000	AEGL-2	780,000	AEGL-2
Cumene	98-82-8	46		0.4	400	IRIS	Inl			4,000.0	HQ=10			250,000	AEGL-1	250,000	AEGL-1
Cyclohexane	110-82-7	WP Entry		6	6000	IRIS				60,000.0	HQ=10						
Dibromochloromethane	74-97-5	WP Entry															
Dichlorodifluoromethane (Freon 12)	75-71-8	WP Entry		0.2	200	HEAST				2,000.0	HQ=10						
Ethyl Acetate	141-78-6	WP Entry															
Ethyl benzene	100-41-4	77		1	1000	IRIS	D	2.5E-06	CAL	4,342.2	Inter. MRL	43,000.0	4342.21	140,000	AEGL-1	140,000	AEGL-1
Heptane	142-82-5	WP Entry															
Hexachlorobutadiene	87-68-3	90	3	0.09	90	P-CAL	C	2.2E-05	IRIS	318.2	Risk10-4						
Hexane (n-Hexane)	110-54-3	95		0.7	700	IRIS	Inl			7,000.0	HQ=10			12,000,000	AEGL-2	12,000,000	AEGL-2
m and/or p and/or o Xylenes (mixed)	1330-20-7	169		0.1	100	IRIS	Inl			7,816.0	Inter. MRL	8,700.0	7815.98	560,000	AEGL-1	560,000	AEGL-1
Methyl butyl ketone (2-hexanone)	591-78-6	WP Entry		0.03	30	IRIS				300.0	HQ=10						
Methyl ethyl ketone (2-butanone)	78-93-3	108		5	5000	IRIS				50,000.0	HQ=10			654,397	AEGL-3	408,998	AEGL-3
Methyl isobutyl ketone (4-methyl-2-pentanone)	108-10-1	111		3	3000	IRIS	Inl			30,000.0	HQ=10						
Methyl tert-butyl ether	1634-04-4	114		3	3000	IRIS		2.6E-07	CAL	2,523.7	Inter. MRL	7,200.0	2523.70	180,000	AEGL-1	180,000	AEGL-1
Methylene chloride	75-09-2	116	2B	1	1000	ATSDR	B2	4.7E-07	IRIS	1,042.1	Inter. MRL	2,100.0	1042.12	690,000	AEGL-1	210,000	AEGL-2
Naphthalene	91-20-3	119		0.003	3	IRIS	C	3.4E-05	CAL	30.0	HQ=10						
Propene	115-07-1	WP Entry		3	3000	CAL				30,000.0	HQ=10						
Styrene	100-42-5	146	2B	1	1000	IRIS				8,500.0	Acute MRL	8,500.0		85,000	AEGL-1	85,000	AEGL-1
Tetrachloroethene (Tetrachloroethylene)	127-18-4	150	2A	0.27	270	ATSDR	B2-C	5.9E-06	CAL	1,400.0	Acute MRL	1,400.0		240,000	AEGL-1	240,000	AEGL-1
Toluene	108-88-3	152	3	5	5000	IRIS	Inl			3,800.0	Acute MRL	3,800.0		750,000	AEGL-1	750,000	AEGL-1
Trichloroethene (Trichloroethylene)	79-01-6	159	2A	0.6	600	CAL	B2-C	2.0E-06	CAL	537.4	Inter. MRL	11,000.0	537.38	700,000	AEGL-1	410,000	AEGL-1
Vinyl acetate	108-05-4	165	2B	0.2	200	IRIS				35.2	Inter. MRL		35.21	24,000	AEGL-1	24,000	AEGL-1
Vinyl bromide	593-60-2	166	2A	0.003	3	IRIS	B2	3.2E-05	HEAST	30.0	HQ=10						
Vinyl chloride	75-01-4	167	1	0.1	100	IRIS	CH	8.8E-06	IRIS	76.7	Inter. MRL	1,300.0	76.69	640,000	AEGL-1	180,000	AEGL-1

	Level of Concern
Particulate Matter	**1-yr Exposure**
PM10	150 ug/m3 (24-hrs)
PM2.5	35 ug/m3 (24-hrs)

Screening levels (for HAPs are based on the Gulf Canyon Mississippi Monitoring Plan, 5-7-10) were determined based on the following hierarchy: 1) Agency for Toxic Substances and Disease Registry's (ATSDR's) Intermediate MRL (protective of 1 year exposures: from 2009 List provided at http://www.atsdr.cdc.gov/mrls/mrls_list.html), 2) ATSDR's Acute MRL (protective of 1-14 day exposures), or (3 the lower of either the 1E-4 risk level (for a 1 year average exposure), or the non-cancer concentration at a HQ of 10. The underlying toxicity values were drawn from the Office of Air Quality Planning Standards (OAQPS) Tables 1 & 2 (http://www.epa.gov/ttn/atw/toxsource/summary.html). * = Denotes that reference concentrations and IUR values in these columns are from alternate sources when EPA-specific values are not available [alternate sources included California (CAL) RfCs, CAL RELs, or ATSDR's MRLs). All screening levels are in units of ug/m3.

The Acute Exposure Screening Levels for 1-hr exposures are selected according to the following hierarchy: 1) Acute Exposure Guideline Levels-1 (AEGL-1) (1hr) = 1-hour Acute Exposure Guideline Levels for mild effects, 2) AEGL-2 = (1hr) Acute Exposure Guideline Levels for moderate effects, or 3) AEGL-3 = (1hr) Acute Exposure Guideline Levels for protection of human health from life threatening chemical levels. AEGL-1 and -2 concentrations are from OAQPS's Table 2 while AEGL3 concentrations are from EPA's Pollution Prevention and Toxics web site (http://www.epa.gov/oppt/aegl/). The 8-hour Acute Exposure Screening Levels for 8-hr exposures are selected according to the following hierarchy: 1) AEGL-1 (8hr) = 8-hour acute exposure guideline levels for mild effects, 2) AEGL-2 (8hr) = Acute exposure guideline levels for moderate effects, or 3) AEGL-3 (8hr) = exposure levels that are protective of life threatening levels.

Historical Monitoring Concentrations (in Blue - years 2000 - 2010) are summarized per county location as follows: 1) Sample Duration (h) = sample duration in hours, 2) Average = the average concentration based on the "detected" levels per individual chemicals (without considering non-detects), 3) Minimum = the minimum concentration detected (without considering non-detects), 4) Maximum = the maximum concentration detected (without considering non-detects), and 5) Total # Observations = the number of samples in the database. All historical data are from the Air Quality System database (http://www.epa.gov/ttn/airs/airsaqs/).

Particulate Matter 10 and 2.5 levels of concern represent National Ambient Air Quality Standards (http://epa.gov/air/criteria.html). "WP Entry" = non-HAP Chemicals identified in the Work Plan. Bold lettering indicates that the chemical was list in the Sampling Work Plan as relative to this type of burning process.

6069109