

## **Appendix F: Air Permits**



Table F.1. Air permits at the Y-12 Complex, 2000

Y-12 Complex source number	Source reference number	Permit number	Stack	Stack description
Y-9201-1-A	01-0020-15	730303P	582	Weld booths sanders and grinders
			583	Metal sanders and grinders
			584	Plasma torch
Y-9201-1-B	01-0020-59	730310P	586	Tool grinding machine shop
Y-9201-1-C	01-0020-17	036057P	278	Graphite carbon machine shop
			279	Graphite carbon machine shop
Y-9201-1W-A	01-0020-99	036129P	272	Paint spray booth
Y-9201-5-F	-	-	821	Lindberg Furnaces
			822	Lindberg Furnaces
Y-9201-5-G	01-0020-44	730308P	412	DeVilbiss hood
			413	Acid pickling tanks
			75	Arc melt
			76	Scrap metal recycle
Y-9201-5-H	01-0020-16	026019P	600	Vapor blasters
			762	Mixing process material
			763	Setup and sample area
			764	Vapor blaster
			765	Nickel plating tank exhaust
			766	Material handling
			767	Material handling
			768	Glovebox and blending station
			769	Inspection house vacuum
Y-9201-5E-B	01-0020-21	730305P	71	Machine hood exhaust
			72	Chip vacuum system
Y-9201-5N-A	01-1020-18	730314P	67	Machine shop exhaust
Y-9201-5N-B	01-0020-30	030484P	239	Plating tanks and hoods
			240	Plating tanks and hoods
			241	Plating tanks and hoods
			454	Plating hoods
Y-9201-5W-I	01-0020-21	730305P	I(00)	Machining equipment
Y-9202-A	01-0020-06	031696P	160	Laboratory beryllium
			161	Laboratory beryllium
Y-9204-2-B	01-0020-71	025954P	313	Caustic scrubber stack exhaust
			314	Caustic scrubber exhaust
			317	Lithium metal wash station
			318	Lithium cell pan wash station

Table F.1 (continued)

Y-12 Complex source number	Source reference number	Permit number	Stack	Stack description
Y-9204-2-D	01-1020-57	730327P	342	Salvage vats
			344	Lithium chloride crystallizer
			345	Lithium chloride crystallizer
			346	Neutralizer
			347	Process tank
			349	Reactor wash station
			350	Reactor wash station
Y-9204-2-E	01-1020-55	730325P	357	Glove box and oven
			359	Machine dust dumping station
			361	Gloveboxes
			363	Glovebox and four ovens
9204-2-E1	01-1020-55	730325P	364	Dry powder process
			351	Rotary dryer
			358	Gloveboxes, sonic sifter
			360	Rotary dryer
Y-9204-2-G	01-1020-79	730329P	362	Glovebox
			371	Metal working machine shop
			372	Metal working machine shop
Y-9204-2-L	01-0020-23	952116P	1119	Ceramic machining operation
Y-9204-2E-A	01-0020-68	730312P	101	Lathes
Y-9204-4-A	01-1020-56	032416P	415	Wash tank
			416	Exhaust from press pit area
			417	Dye penetrant hood exhaust
			85	7500-ton press, vertical turret lathe
			86	1500-ton press
			87	1000-ton press, quench tank
			88	Grit blaster
			89	Flowturn lathe, quench furnace
			90	Exhaust from salt bath
			91	Three quench tanks
			92	Billet grinding/quenching facility
			93	Vacuum quench furnace
			94	Plasma torch exhaust
			95	Two salt baths
Y-9206-B	01-0020-03	731689P	13	South stack incinerator
			15	West stack
			17	Steam cleaning hoods
			211	Hood 29 and 30

Table F.1 (continued)

Y-12 Complex source number	Source reference number	Permit number	Stack	Stack description
Y-9212-A	01-1020-72	743807P	111	Reduction fluid bed
			112	Conversion fluid beds
			134	B-Wing and C-1 Wing exhaust
			141	Reduction fluid bed
			142	Conversion fluid beds
			27	D-Wing room 1010 hoods
			28	Reduction shear and room
			33	Headhouse equipment incinerator
			40	B-1 sampling lab hood
			430	HF dock cylinder/vaporizer
			431	N <sub>2</sub> O <sub>4</sub> cylinder purge vent
			432	Muffle furnaces (2) vent room 229
			518	HF dock cylinder/vaporizer
			Y-9212-B	01-0020-02
38	U metal drying and briquetting process			
43	Exhaust from machine shop			
48	Chip washing and drying			
Y-9212-C	01-0020-05	025984P	113	Dissolver trays/scrubber
			114	Shear and hacksaw hood
			128	Precipitation process
			26	Drum receiving/sampling hood and glovebox
			290	Tube furnace/gas purge vent
			44	Leaching and dissolving hoods
			45	Muffle furnace dry hoods
			46	Tray dissolver hoods
Y-9212-M	01-0020-21	730305P	1083	Air bearing operations
			Y-9215-A	01-0020-37
Y-9215-B	01-1020-51	732125P	1	O-wing metal working operations
			2	Abar water quench vacuum
			4	O-wing metal working operations
Y-9215-C	01-1020-52	730323P	6	Base of rolling mill
			7	Metal process area
Y-9215-D	01-1020-53	025966P	10	Roll mill exhaust
			11	Furnace/quench tank/conveyor exhaust
			12	Hydraulic shear exhaust
			9	Rolling mill/salt bath
Y-9401-3-A	01-1020-31	034809F	170	Coal or natural gas fired boiler
Y-9401-3-B	01-1020-32	034809F	170	Coal or natural gas fired boiler
Y-9401-3-C	01-1020-33	034809F	171	Coal or natural gas fired boiler
Y-9401-3-D	01-1020-34	034809F	171	Coal or natural gas fired boiler

**Oak Ridge Reservation**

**Table F.1 (continued)**

Y-12 Complex source number	Source reference number	Permit number	Stack	Stack description
Y-9404-9-C	01-1020-19	730315P	324	Urethane warming ovens
			325	Urethane warming oven #3
			326	PVC oven #4
			327	PVC oven #5
Y-9720-32-C	01-1020-99	742886I	435	Classified paper waste incinerator
Y-9738-A	01-0020-14	036776P	576	Sandblaster
			577	Hood with fan
Y-9767-13-A	01-0020-35	036292P	00	Chilled water circulating system
Y-9767-4-B	01-0020-38	036293P	00	Chilled water circulating system
Y-9811-6-A	01-1020-82	029415P	377	Dry ash handling system
			378	Dry ash handling system
Y-9815-A	01-0020-11	742133P	780	Vent from dissolvers
Y-9998-A	01-0020-13	038154P	60	5 swaging machines
			61	Foundry operations
			62	Hood
			64	Nitric acid pickling tank
			813	Sintering furnaces
Y-9998-B	01-1020-84	029584P	172	Machining beryllium source
Y-9998-F	01-1020-12	950266P	143	Metal forming facility
Fugitive	01-1020-89	046044P	00	Plantwide fugitive sources

Table F.2. ORNL air permits, 2000

ORNL source number	Emission source reference number	TDEC permit number	Source description	Permit Type
2519-1/5	73-0112-03	030284P	Steam Plant boilers 1–5 and ash handling system	Operating
2519-6	73-0112-03 NSPS	949513F	NSPS Boiler, 125 mmBtu	Operating
2525	73-0112-49	035026P	Electroplating shop	Operating
3039	73-0112-93	739974P	Off gas and hot cell ventilation	Operating
3502	73-0112-05	947267P	Manipulator Boot Shop	Operating
3544	73-0112-70	730468P	Process Waste Treatment Plant	Operating
3587	73-0112-56	029830P	Printed Circuit Board Facility	Operating
3608	73-0112-37	730489P	Air stripper, NWTP	Operating
4508	73-0112-61	040077P	Acid etching process	Operating
4508	73-0112-55	024306P	Sandblaster	Operating
7005	73-0112-26	950833P	Lead Shop	Construction
7007	73-0112-09	743190P	Paint Shop	Operating
7015	73-1106-47	947142P	Plasma Arc Torch	Operating
7021	73-0112-58	038357P	Sandblaster	Operating
7600	72-0112-20	017930P	Integrated Process Demonstration Facility	Operating
7602	73-0112-24	027090F	Boiler, 16.75 mmBtu	Operating
7603	73-0112-25	740219F	Boiler, 6.048 mmBtu	Operating
7667	6011	6011	Chemical Detonation Facility	Open burning
7877	73-0112-71	043761P	Liquid Waste Solidification Project	Operating
7911	73-0112-82	034381P	High Flux Isotope Reactor and Radiochemical Engineering Development Center	Operating
7934	73-0112-53	024912P	Silver Recovery System	Operating
7935	73-0112-78	027393P	Equipment Cleaning Facility	Operating
FE	73-0112-97	029660P	Fugitive Emissions	Operating

Table F.3. ETPP air permits, 2000

ETTP source number	Emission source reference number	Permit number	Source description	Permit type
K1202ST1	73-1106-20	033203P	Tank stores waste oils and solvents for incinerator	Operating
K1202ST2	73-1106-41	034392P	Tank stores waste oils and solvents for incinerator	Operating
K1420AI	73-0106-82	034619P	Flammable materials storage tank	Operating
K1425WOSC	73-0106-11	029895P	Waste oil and solvent storage tanks	Operating
K1425WOSA	73-0106-11	029895P	Waste oil and solvent storage tanks	Operating
K1425WOSD	73-0106-11	029895P	Waste oil and solvent storage tanks	Operating
K1425WOSB	73-0106-11	029895P	Waste oil and solvent storage tanks	Operating
K1435TSCAINCIN	73-0106-78	0324491	TSCA Incinerator	Operating
K1435CTANKFARM	73-0106-75	037460P	Tank farm for hazardous liquid wastes	Operating
K1407CNFAIRSTRIPPER	73-0106-90	045253P	Air stripper for removing VOCs at CNF	Operating
K1775TVS	73-0106-91	944465P	Low-level mixed waste vitrification system	Permit to construct
ETTPFUGITIVEEMISSIONS	73-1106-38	043016P	Number of sources logged into permit	Operating
K-1066-EUF6CP	73-1106-48	94910P	UF <sub>6</sub> Cylinder Project	Permit to construct



**Table F.4. Periods of excess emissions and out-of-service conditions for Y-12 Steam Plant east and west opacity monitors in 2000**

Date	Stack	Condition	Comments
January 23	West	Shutter malfunction	The west stack shutter stuck during self-check
February 7	West	Shutter malfunction	The west stack shutter stuck during self-check
February 12	West	Opacity monitor malfunction	The west stack monitor stuck during self-check
February 22	East	Shutter malfunction	The east stack shutter stuck during self-check
April 18 and 19	East and West	Opacity monitoring equipment was out of service	Annual calibration of the opacity monitors
July 5	West	Two six-minute periods of excess emissions	Start-up of fans on Boiler 2 after overhaul
September 19	West	Two six-minute periods of excess emissions	Baghouse 1 malfunction. Damaged bags were replaced to correct the malfunction
November 8	East	One six-minute period of excess emissions	An initial start-up of fans on Boiler 3 after overhaul
November 13	East	One six-minute period of excess emissions	Restart of fans on Boiler 3 after overhaul
November 27	East	One six-minute period of excess emissions	Baghouse 3 malfunction. This malfunction was caused by high inlet temperature, which, in turn, caused the baghouse bypass dampers to open
November 28	West	Opacity monitor malfunction	The arm operating the reference mirror stuck during self-check
November 30	East and West	Breaker malfunction	The 480-volt breakers, which feed the baghouses and monitors, were replaced
December 5	West	One six-minute period of excess emissions	Power failure that caused the Baghouses 1 and 2 bypass dampers to open
December 22	West	One six-minute period of excess emissions	Air to Baghouse 1 was accidentally closed, causing the baghouse bypass dampers to open