

## **Appendix F: Air Permits**



Table F.1. Air permits at the Y-12 Plant, 1999

Y-12 Plant 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	-	-	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
Y-9204-2-D	01-1020-57	730327P	342	Salvage vats
			344	Lithium chloride crystallizer

Table F.1 (continued)

Y-12 Plant source number	Source reference number	Permit number	Stack	Stack description
			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
			364	Dry powder process
9204-2-E1	01-1020-55	730325P	351	Rotary dryer
			358	Gloveboxes, sonic sifter
			360	Rotary dryer
			362	Glovebox
Y-9204-2-G	01-1020-79	730329P	371	Metal working machine shop
			372	Metal working machine shop
Y-9204-2-L	–	–	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	Vent from two grit blasters
			86	Exhaust from press pit area
			87	Exhaust from press pit area
			88	Exhaust from press pit area
			89	Exhaust from plasma torch
			91	Exhaust from ingot cooler
			93	Dust removal exhaust
Y-9206-B	01-0020-03	731689P	13	South stack incinerator
			15	West stack
			17	Steam cleaning hoods
			211	Hood 29 and 30
			95	Salt baths
Y-9212-A	01-1020-72	036942P	111	Reduction fluid bed
			112	Conversion fluid beds
			134	B-Wing and C-1 Wing exhaust
			141	Reduction fluid bed
			142	Conversion fluid beds

Table F.1 (continued)

Y-12 Plant source number	Source reference number	Permit number	Stack	Stack description
			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	730301P	110	U metal and U metal alloy
			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
			47	Dissolver tray hoods/room 1
Y-9212-M	01-0020-21	730305P	1083	Air bearing operations
Y-9215-A	01-0020-37	731839P	3	Machine shop hood exhaust
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	034809P	170	Coal or natural gas fired boiler
Y-9401-3-B	01-1020-32	034809P	170	Coal or natural gas fired boiler
Y-9401-3-C	01-1020-33	034809P	171	Coal or natural gas fired boiler
Y-9401-3-D	01-1020-34	034809P	171	Coal or natural gas fired boiler
Y-9401-5-A	–	–	109	Uranium chip oxidixer
Y-9404-9-C	01-1020-19	730315P	324	Urethane warming ovens

Table F.1 (continued)

Y-12 Plant source number	Source reference number	Permit number	Stack	Stack description
			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	025895P	780	Vent from dissolvers
Y-9825-1-A	–	–	127	Oxide storage vault
Y-9825-2-A	–	–	127	Oxide storage vault
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	025984P	172	Machining beryllium source

Table F.2. ORNL air permits, 1999

ORNL source number	Emission source reference number	TDEC permit number	Source description
2519-1/5	73-0112-03	030284P	Steam Plant Boilers 1–5 and Ash Handling System
2519-6	73-0112-03 NSPS	949513F	NSPS Boiler, 125 mmBtu
2525	73-0112-49	035026P	Electroplating Shop
3039	73-0112-93	739974P	Off Gas & Hot Cell Ventilation
3502	73-0112-05	947267P	Manipulator Boot Shop
3544	73-0112-70	730468P	Process Waste Treatment Plant
3587	73-0112-56	029830P	Printed Circuit Board Facility
3608	73-0112-37	730489P	Air Stripper, NWTP
4508	73-0112-61	040077P	Acid Etching Process
4508	73-0112-55	024306P	Sandblaster
7005 <sup>a</sup>	73-0112-26	950833P	Lead Shop
7007	73-0112-09	743190P	Paint Shop
7015	73-1106-47	947142P	Plasma Arc Torch
7021	73-0112-58	038357P	Sandblaster
7600	72-0112-20	017930P	Integrated Process Demonstration Facility
7602	73-0112-24	027090F	Boiler, 16.75 mmBtu
7603	73-0112-25	740219F	Boiler, 6.048 mmBtu
7667	6009	6009	Chemical Detonation Facility
7877	73-0112-71	043761P	Liquid Waste Solidification Project
7911	73-0112-82	034381P	High Flux Isotope Reactor and Radiochemical Engineering Development Center
7934	73-0112-53	024912P	Silver Recovery System
7935	73-0112-78	027393P	Equipment Cleaning Facility
FE	73-0112-97	029660P	Fugitive Emissions

<sup>a</sup>Construction Permit

Table F.3. ETPP air permits, 1999

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	LLMW 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 1999**

Date	Stack	Condition	Comments
January 24	East	Opacity filter malfunction	The filter stuck during self-check
April 16	East	One six-minute period of excess emissions	Maintenance operators accidentally tripped the Baghouse 4 bypass while performing preventive maintenance on Baghouse 3
April 20 and 21	West and East	Opacity monitoring equipment was out of service	Annual calibration of the opacity monitors
July 13	East	Two six-minute periods of excess emissions	Start-up of fans on Boiler 3 after overhaul
July 16	East	One six-minute period of excess emissions	Power failure (outage) that caused baghouse bypass dampers to open. There was also a shutter malfunction due to the power failure
July 16	West	One six-minute period of excess emissions	Power failure (outage) that caused baghouse bypass dampers to open
October 12	East	One six-minute period of excess emissions	Start-up of fans on Boiler 4 after overhaul
October 28	East	One six-minute period of excess emissions	Fan dampers stuck on Boiler 4 after overhaul
November 12	West	Two six-minute periods of excess emissions	Baghouse 4 transmitter malfunction causing the baghouse bypass to open