Nine Metal Fabrication and Finishing Area Source Categories 40 CFR Part 63 Subpart XXXXXX (6X) NESHAP Questions & Answers

This document covers questions & answers provided by EPA in their Q and A document, AND DEQ's strategy for implementing the state's applicability determination criteria.

Some of the questions addressed may be relevant to more than one category or topic.

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SECTION 1

Applicability - General

Q1: Would moving a metal fab operation to a new location trigger the "new facility" requirements of the rule?

A: Simply moving an entire affected source to a new location would not be considered construction. 40 CFR 63.11514(d) establishes that: An affected source is new if you commenced construction or reconstruction of the affected source, as defined in 40 CFR 63.2 of the "General Provisions" to part 63, on or after April 3, 2008.

Construction is defined at 40 CFR 63.2 as:

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

However, the owner or operator needs to evaluate whether reconstruction (also defined at 40 CFR 63.2) has taken place, which would also trigger the new source requirements of the rule. Reconstruction is defined at 40 CFR 63.2 as: Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously unaffected source to such an extent that:(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and (2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a state) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of HAPs from that source.

- **Q2:** Regarding the definition of an "affected source." What constitutes "the collection of all equipment and activities necessary to perform" a specific operation. Assume one has a single closed system dry abrasive blasting machine that has been in place for ten years (an existing affected source), and then a second identical closed system dry abrasive blasting machine is added sometime after April 3, 2008. Is the second machine a new affected source or an existing affected source under subpart 6X?
- A: The Clean Air Act uses the word "source" to mean the entire facility in terms of the classification of "new" vs. "existing" whereas for the 6X rule, the "affected source" is actually one of the processes at the facility. The entire facility however is still used to determine new vs. existing for both the rule and the CAA. So if a facility is an existing source under 6X, they would still be required to comply with the requirements for existing sources regardless of any

equipment added to the facility or operation. After the "existing source" compliance date (in this case 2011), if a new affected source is added to an existing facility, the facility would need to include this process into their next annual report. Be aware that if you add equipment or processes that a facility must notify the DEQ regional office in their area, or their permit contact.

Q3: The definition of "Primarily Engaged" (see 40 CFR 63.11522) describes a 50% threshold and utilizes units common to the industry. However, some facilities may do a variety of work, not all of which is related to manufacturing. In such cases, is it acceptable to use revenue generation as the basis of comparison in such cases?

A: Yes, especially if it is the only available means for comparison. If the Metal Fabrication and Finishing production operation cannot be easily expressed or isolated from other production in quantitative terms (such as number of units, linear feet, square feet) or, the other work done for profit at the facility is a "service" such as design or consulting, then those a relevant unit other than those specifically cited in the rule can be used.

Note: Sales and marketing should not be included in any assessment since sales and marketing is considered a manufacturing support function for the purposes of this rule along with other purely administrative activities at a facility.

Q4: Is there a major source equivalent to the MF area source NESHAP (subpart 6X)?

A: No, not at this time.

Q5: A source was a major source until it complied with the metal coating MACT (subpart MMMM). Now it's HAP Potential to Emit is very low and so it is an area source for purposes of future NESHAPs even though it will always be subject to subpart MMMM under the once in, always in policy. If that source is in one of the 6X source categories, is it subject to 6X?

A: No, if the facility is a 'synthetic minor' under subpart MMMM then they are not subject to 6X. The major source at issue is currently subject to the MACT standard because on the first substantive compliance date of the relevant MACT standard, the source was emitting above the 10/25 major source thresholds. After the first substantive compliance date of the relevant MACT standard, the source reduced its emissions to below the 10/25 threshold by virtue of application of MACT controls. The source is subject to the MACT standard under the once-in-always-in policy because the source was a major source on the first substantive compliance date of the MACT standard. The source would only be subject to the major source standard, not the area source standard.

SECTION 2

Applicability – SIC/NAICS Code Issues

Q1: Numerous questions have been asked regarding applicability of the 6X rule to specific industries, and how DEQ determines what facilities are subject to the standards in the rule; in particular:

- What Standard Industrial Classification (SIC) code is associated with each description listed in Table 1 of the <u>final rule</u> (page 43010 of the Federal Register).
- What types of facilities are included in those SIC codes, and therefore subject to the 6X rule.
- Why the North American Industrial Classification System (NAICS) codes and descriptions listed in Table 1 of the "preamble" to the <u>final rule</u> (page 42979) should not be used when determining a facility's applicability under the 6X rule.

The "preamble" of the federal register is EPA's way of introducing the final 6X rule by giving the reader a brief history. It is also where EPA responds to comments, answers questions on the proposed rule, and describes how the rule is to be interpreted. The "preamble" is not legally binding. The final rule found on pages 43000 through 43011 of the Federal Register is legally binding. It is the requirements found in the final rule that DEQ is using to determine who is affected by the 6X rule, how the rule is to be implemented and what is required.

Given the information above, the following process is used when determining rule applicability:

A1: Use of SIC codes and not NAICS codes for applicability is legally defensible. This is because:

- The descriptions found in Table 1 on page 43010 of the rule are part of the <u>final rule</u>. The descriptions in Table 1 also match the associated **SIC code** descriptions found in EPA's published 6X rule Q&A document (Chart 2, pages 7-9).
- The "preamble" states that the applicability criteria in the <u>final rule</u> should be examined to determine whether a facility is affected. Table 1 in the <u>final rule</u> defines each affected source category. No NIACS codes are used.
- The descriptions in Table 1 of the <u>final rule</u> closely match the descriptions found in the **SIC**Manual published by the US Census Bureau.

SIC Code Table: The table below has been created for your convenience and shows the similarities between the reference documents being used. This Table should be used as a tool in determining a facility's applicability under the 6X rule, and therefore whether the standards in the rule apply.

A2: NAICS codes should not be used because they <u>are not</u> legally defensible. This is because:

- The affected NAICS codes (page 42979) are only found in the "preamble" to the final 6X rule. Remember, this is the introduction and history to the final rule.
- The "preamble" states the listed **NAICS codes** were not intended to be exhaustive, but to be used as a guide when determining what facilities may be affected by the 6X rule.
- The <u>final rule</u> does not include NAICS codes. As mentioned, the NAICS codes are in the "preamble" only, which is not legally defensible.

A3: If the SIC code description does not match the primary activity occurring at the facility, then the SIC code is incorrect. This sometimes happens when a facility changes their activities but does not change their SIC code(s). The primary activity may also be misclassified under an incorrect SIC code. If activities performed at the facility and the associated SIC code(s) change

or if you think the primary activity is misclassified under an incorrect SIC code, the following should be considered:

- If the new SIC code describing the facility's "primary" activity is not one of those listed in the SIC Code Table below, then the facility is not subject to the 6X rule.
- If the new SIC code describing the facility's "primary" activity is one of those listed in the SIC Code Table below, then the facility is subject to the 6X rule.
- If the primary activity at the facility has been misclassified, and the correct SIC code is not listed in the table below, then the facility is not subject to the 6X rule.
- If the primary activity at the facility has been misclassified, and the correct SIC code is listed in the table below, then the facility is subject to the 6X rule.

Talk to DEQ if there is a question regarding which SIC code is appropriate for the primary activity performed at the facility.

Note: A Facility may have more than one primary SIC code.

<u>Standard Industrial Classification Code Table</u> Affected Codes and Descriptions

Primary Metals Products Manufacturing

Source	SIC	Description		
DEQ	3399	Establishments primarily engaged in manufacturing products such as fabricated wire products		
Q&A		(except springs) made from purchased wire. These fa	ciliti	ies also manufacture steel balls;
		nonferrous metal brads and nails; nonferrous metal s	oike	s, staples, and tacks; and other primary
		metals products not elsewhere classified.		
6X Rule		Establishments primarily engaged in manufacturing p	rodu	ucts such as fabricated wire products
		(except springs) made from purchased wire. These fac	iliti	es also manufacture steel balls;
		nonferrous metal brads and nails; nonferrous metal s	oike	s, staples, and tacks; and other primary
		metals products not elsewhere classified.		
SIC		Establishments primarily engaged in manufacturing primary metal products, not elsewhere		
Manual		classified, such as nonferrous nails, brads, and spikes, and metal powder, flakes, and paste.		
		 Aluminum atomized powder Powder, metal: except artists materials 		Powder, metal: except artists materials
		Balls, steel	•	Reclaiming ferrous metals from clay
		Brads, nonferrous metal (including wire)	•	Recovery of iron ore from open hearth
		Flakes, metal		slag
		Iron powdered	•	Silver powder, except artists materials
		Laminating steel for the trade	•	Spikes, nonferrous metal (including wire)
		Nails, nonferrous metal (including wire)	•	Staples, nonferrous metal (including wire)
		Paste, metal	•	Tacks, nonferrous metal (including wire)

Heating Equipment, Except Electric and Warm Furnaces

Source	SIC	Descrip	tion	
DEQ Q&A	3433	Establishments primarily engaged in manufacturi		
		warm air furnaces, including gas, oil, and stoker o		
		utilization of gaseous, liquid, and solid fuels. Typi	• •	
		include low-pressure heating (steam or hot water	· · · · · · · · · · · · · · · · · · ·	
		hot water) furnaces, domestic gas burners, gas room heaters, gas infrared heating units,		
		combination gas-oil burners, oil or gas swimming pool heaters, heating apparatus (except		
		electric or warm air), kerosene space heaters, gas fireplace logs, domestic and industrial oil		
		burners, radiators (except electric), galvanized iro	·	
		heaters (except electric), coke and gas burning sa	-	
		collectors, solar heaters, space heaters (except ele	·	
		stokers, wood and coal-burning stoves, domestic		
		(except electric).	unit heaters (except electric), and wan heaters	
6X Rule		Establishments primarily engaged in manufacturii	ag heating equipment, except electric and	
OX Rule				
		warm air furnaces, including gas, oil, and stoker cutilization of gaseous, liquid, and solid fuels. Prod		
		low-pressure heating (steam or hot water) boilers	•	
		water) furnaces, domestic gas burners, gas room		
		combination gas-oil burners, oil or gas swimming		
		electric or warm air), kerosene space heaters, gas	•	
		burners, radiators (except electric), galvanized iro		
		heaters (except electric), coke and gas burning salamanders, liquid or gas solar energy		
		collectors, solar heaters, space heaters (except electric), mechanical (domestic and industrial)		
		stokers, wood and coal-burning stoves, domestic unit heaters (except electric), and wall heaters (except electric).		
CIC Manual				
SIC Manual		Establishments primarily engaged in manufacturing heating equipment, except electric and		
		warm air furnaces, including gas, oil, and stoker coal fired equipment for the automatic utilization of gaseous, liquid, and solid fuels. Establishments primarily engaged in		
		manufacturing warm air furnaces are classified in Industry 3585; cooking stoves and ranges are		
		classified in Industry 3631; boiler shops primarily engaged in the production of industrial,		
		power, and marine boilers are classified in Industr	-	
		process furnaces and ovens are classified in Industry 3567.		
		Boilers, low-pressure heating: steam or hot	Range boilers, galvanized iron and	
		water	nonferrous metal	
		Fireplace inserts	Room heaters, except electric	
		Furnaces, domestic: steam or hot water	Salamanders, coke and gas burning Salamanders collectors liquid an appropriate to the salamanders of the salamanders.	
		Gas burners, domestic Gas besters, rooms	Solar energy collectors, liquid or gas Solar bostors	
		Gas heaters, room Gas infrared heating units	Solar heaters Solar heaters execut electric	
		Gas infrared heating unitsGas-oil burners, combination	Space heaters, except electricStokers, mechanical: domestic and	
		Heaters, swimming pool: oil or gas	industrial	
		Heating apparatus, except electric or warm air	Stoves, household: heating-except electric	
		Kerosene space heaters	Stoves, modseriold. Heating-except electric Stoves, wood and coal burning	
		Logs, fireplace: gas	Unit heaters, domestic: except electric	
		Oil burners, domestic and industrial	Wall heaters, except electric	
		Radiators, except electric		
		hadiators, cheept electric		

Fabricated Structural Metal Manufacturing

Source	SIC	Description			
DEQ Q&A	3441	Establishments primarily engaged in fabricating iron and steel or other metal for structural			
		purposes, such as bridges, buildings, and sections f	or ships, boats, and barges.		
6X Rule		Establishments primarily engaged in fabricating iro	n and steel or other metal for structural		
		purposes, such as bridges, buildings, and sections f	or ships, boats, and barges.		
SIC		Establishments primarily engaged in fabricating iro	n and steel or other metal for structural		
Manual		purposes, such as bridges, buildings, and sections f	or ships, boats, and barges. Establishments		
		primarily engaged in manufacturing metal doors, sa	ash, frames, molding, and trim are classified		
		in Industry 3442; and establishments doing fabrica	tion work at the site of construction are		
		classified in Division C, Construction.			
		Barge sections, prefabricated metal	Railway bridge sections, prefabricated		
		Boat sections, prefabricated metal	metal		
		Expansion joints (structural shapes): iron and	Ship sections, prefabricated metal		
		steel	Steel joists, open web: long-span series		
		Floor jacks, metal	Steel railroad car racks (for transporting		
		• Floor posts, adjustable: metal motor vehicles fabricated)			
		Gates, dam: metal plate Structural steel, fabricated			
		Highway bridge sections, prefabricated metal	Tower sections, transmission: prefabricated		
		Joists, open web steel: long-span series	metal		
		 Radio and television tower sections, prefabricated metal 			

Fabricated Plate Work (Boiler Shops)

Source	SIC	Description	
DEQ Q&A	3443	Establishments primarily engaged in manufacturing power and marine boilers, pressure and nonpressure tanks, processing and storage vessels, heat exchangers, weldments and similar products	
6X Rule		Establishments primarily engaged in manufacturing power marine boilers, pressure and nonpressure tanks, processing and storage vessels, heat exchangers, weldments and similar products.	
SIC Manual		Establishments primarily engaged in manufacturing power and marine boilers, pressure and nonpressure tanks, processing and storage vessels, heat exchangers, weldments and similar products, by the process of cutting, forming and joining metal plates, shapes, bars, sheet, pipe mill products and tubing to custom or standard design, for factory or field assembly. Establishments primarily engaged in manufacturing warm air heating furnaces are classified in Industry 3585; those manufacturing other nonelectric heating apparatus, except power boilers, are classified in Industry 3433; those manufacturing household cooking apparatus are classified in Industry 3631; and those manufacturing industrial process furnaces and ovens are classified in Industry 3567.	

- Absorbers, gas
- Accumulators (industrial pressure vessels)
- Acetylene cylinders
- Aftercooler shells
- Air preheaters, nonrotating: plate type
- Air receiver tanks, metal plate
- Airlocks
- Annealing boxes, pots, and covers
- Atomic waste casks
- Autoclaves, industrial
- Baffles
- Bails, ladle
- Bins, prefabricated metal plate
- Boiler shop products: industrial boilers, smokestacks, and steel tanks
- Boilers: industrial, power, and marine
- Boxes, condenser: metal plate
- Breechings, metal plate
- Buoys, metal
- Cable trays, metal plate
- Caissons, metal plate
- Cars for hot metal
- Casing, boiler: metal plate
- Casings, scroll
- Chutes, metal plate
- Condensers, barometric
- Condensers, steam
- Containers, shipping metal plate (bombs, etc.)except missile casings
- Cooling towers, metal plate
- Cryogenic tanks, for liquids and gases: metal plate
- Culverts, metal plate
- Cupolas, metal plate
- Cyclones, industrial: metal plate
- Cylinders, pressure: metal plate
- Digesters, process: metal plate
- Ducting, metal plate
- Economizers (boilers)
- Evaporators (process vessels), metal plate
- Exchangers, heat: industrial, scientific, and nuclear
- Farm storage tanks, metal plate
- Fermenters (process vessels), metal plate
- Floating covers, metal plate
- Flumes, metal plate
- Forms, collapsible: for tunnels
- Fractionating columns, metal plate
- Fuel tanks, metal plate
- Fumigating chambers, metal plate
- Gas holders, metal plate
- Gas tanks, metal plate

- Liners, industrial: metal plate
- Liquid oxygen tanks, metal plate
- Melting pots, for metal
- Missile silos and components, metal plate
- Mixers for hot metal
- Nuclear core structurals, metal plate
- Nuclear shielding, metal plate
- Oil storage tanks, metal plate
- Penstocks, metal plate
- Perforating on heavy metal
- Pile shells, metal plate
- Pipe, large diameter: metal plate-made by plate fabricators
- Plate work, fabricated: cutting, punching, bending, and shaping
- Precipitators (process vessels), metal plate
- Pressure vessels, industrial: metal platemade in boiler shops
- Pressurizers and auxiliary equipment, nuclear: metal plate
- Reactor containment vessels, metal plate
- Reactors, nuclear: military and industrial
- Retorts, industrial
- Rocket transportation casings
- Separators, industrial process: metal plate
- Septic tanks, metal plate
- Kettles (process vessels), metal plate
- Knockouts, free water: metal plate
- Ladles, metal plate
- Skid tanks, metal plate
- Smelting pots and retorts
- Smokestacks, boiler plate
- Space simulation chambers, metal plate
- Spheres, for liquids or gas: metal plate
- Standpipes
- Steam jet after coolers
- Steam jet inter condensers
- Sterilizing chambers, metal plate
- Stills, pressure: metal plate
- Storage tanks, metal plate
- Surge tanks, metal plate
- Tanks for tank trucks, metal plate
- Tanks, metal plate: lined
- Tanks, standard and custom fabricated: metal plate-made in boiler
- Towers, tank: metal plate
- Towers: bubble, cooling, fractionatingmetal plate
- Trash racks, metal plate

Heat transfer drives (finned tubing)	Troughs, industrial metal plate
High vacuum coaters, metal plate	Truss plates, metal
Hoods, industrial: metal plate	Tunnel lining, metal plate
Hooks, crane: laminated plate	Tunnels, vacuum: metal plate
Hoppers, metal plate	Tunnels, wind
Housing cabinets for radium, metal plate	Vacuum tanks, metal plate
Housings, pressure	Vats, metal plate
Hydropneumatic tanks, metal plate	 Vessels, process and storage: metal plate
Intercooler shells	(made in boiler shops)
Jackets, industrial: metal plate	Water tanks, metal plate
	Weldments

Iron and Steel Forging

Source	SIC	Description	
DEQ Q&A 6X Rule	3462	Establishments primarily engaged in the forging manufa and steel metal is pressed, pounded or squeezed under known as forgings. The process is usually performed hotemperature before it is worked. The forging process is processes, as metal used to make forged parts is never restablishments primarily engaged in the forging manufa	great pressure into high strength parts to by preheating the metal to a desired different from the casting and foundry melted and poured.
		and steel metal is pressed, pounded or squeezed under known as forgings. The forging process is different from metal used to make forged parts is never melted and po	great pressure into high strength parts the casting and foundry processes, as ured.
SIC Manual		 Establishments primarily engaged in manufacturing iron use of dies. Aircraft forgings, ferrous: not made in rolling mills Anchors, forged: not made in rolling mills Anvils, forged: not made in rolling mills Armor plate, forged iron and steel: not made in rolling mills Automotive forgings, ferrous: not made in rolling mills Axles, railroad: forged-not made in rolling mills Bumping posts, railroad: forged-not made in rolling mills Bus, truck and trailer forgings, ferrous: not made in rolling mills Calks, horseshoe: forged-not made in rolling mills Chains, forged steel: not made in rolling mills Construction and mining equipment forgings, ferrous: not made in rolling mills Crankshafts, forged steel: not made in rolling mills Engine forgings, ferrous: not made in rolling mills Flange, valve, and pipe fitting forgings, ferrous: not made in rolling mills Forgings, iron and steel: not made in rolling mills Gears, forged steel: not made in rolling mills Hammer forgings, not made in rolling mills Hammer forgings, not made in rolling mills Internal combustion engine (stationary and mobile) forgings 	 Machinery forgings, ferrous: not made in rolling mills Mechanical power transmission forgings, ferrous: not made in rolling Missile forgings, ferrous: not made in rolling mills Nuclear power plant forgings, ferrous: not made in rolling mills Ordnance forgings, ferrous: not made in rolling mills Pole line hardware forgings, ferrous not made in rolling mills Press forgings, iron and steel: not made in rolling mills Pump and compressor forgings, ferrous: not made in rolling mills Railroad wheels, axles, frogs, and related equipment: forged-mfpm Switches, railroad: forged-not made in rolling mills Turbine engine forgings, ferrous: not made in rolling mills Upset forgings, iron and steel: not made in rolling mills Wheels, car and locomotive: forged-

	not made in rolling mills

Valves and Pipe Fittings

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Source	SIC	Description	1	
DEQ Q&A	3494	Establishments primarily engaged in manufacturing n	netal valves and pipe fittings; flanges;	
		unions, with the exception of purchased pipes; and o	ther valves and pipe fittings not	
		elsewhere classified.		
6X Rule		Establishments primarily engaged in manufacturing m	netal valves and pipe fittings; flanges;	
		unions, with the exception of purchased pipes; and other valves and pipe fittings not elsewhere classified.		
SIC		Establishments primarily engaged in manufacturing n	netal valves and pipe fittings, not	
Manual		elsewhere classified, such as plumbing and heating va		
		unions, except from purchased pipes. Establishments	primarily engaged in manufacturing	
		plastics pipe fittings are classified in Industry 3089; those manufacturing plumbing fixture		
		fittings and trim are classified in Industry 3432; and those manufacturing fittings and couplings		
		for garden hose are classified in Industry 3429. Establishments primarily engaged in		
		manufacturing fluid power valves are classified in Industry 3492, and those manufacturing		
		other industrial valves are classified in Industry 3491. Establishments primarily engaged in		
		fabricating pipe fittings from purchased metal pipe by processes such as cutting, threading, and		
		bending are classified in Industry 3498.		
		Boiler couplings and drains, metal	Plumbing and heating valves, metal	
		Couplings, pipe: except pressure and soil pipe-metal	Reducer returns, pipe: metal	
		Elbows, pipe: except pressure and soil pipe-metal	Steam fittings and specialties, except	
		Flanges and flange unions, pipe: metal	plumbers brass goods and	
		Line strainers, for use in piping systems-metal	Stop cocks, except drain: metal	
		Pipe fittings, except plumbers brass goods: metal	Unions, pipe: metal	
		Pipe hangers, metal	Well adapters, tipless: metal	

Fabricated Metal Products

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Source	SIC	Description	
DEQ Q&A	3499	Establishments primarily engaged in manufacturing fabricated metal products, such as fire or burglary resistive steel safes and vaults and similar fire or burglary resistive products; and collapsible tubes of thin flexible metal. Also included are establishments primarily engaged in manufacturing powder metallurgy products, metal boxes; metal ladders; metal household articles, such as ice cream freezers and ironing boards; and other fabricated metal products not elsewhere classified.	
6X Rule		Establishments primarily engaged in manufacturing fabricated metal products, such as fire or burglary resistive steel safes and vaults and similar fire or burglary resistive products; and collapsible tubes of thin flexible metal. Also, establishments primarily engaged in manufacturing powder metallurgy products, metal boxes; metal ladders; metal household articles, such as ice cream freezers and ironing boards; and other fabricated metal products not elsewhere classified.	
SIC Manual		Establishments primarily engaged in manufacturing fabricated metal products, not elsewhere classified, such as fire or burglary resistive steel safes and vaults and similar fire or burglary resistive products; and collapsible tubes of thin flexible metal. Also included are establishments primarily engaged in manufacturing metal boxes, metal ladders, and	

	metal household articles, such as ice cream freezers	s and	d ironing boards. Establishments
	primarily engaged in manufacturing concrete burial	l vau	lts are classified in Industry 3272,
	and metal burial vaults are classified in Industry 3995. Establishments primarily engaged in		
	manufacturing advertising novelties are classified ir	ո Ind	ustry 3993.
	Aerosol valves, metal	•	Locks, safe and vault: metal
	Ammunition boxes metal	•	Machine bases, metal
	 Aquarium accessories, metal 	•	Magnets, permanent: metallic
	 Automobile seat frames, metal 	•	Marine horns, compressed air or
	Bank chests, metal		steam: metal
	Barricades, metal	•	Money chests, metal
	Book ends, metal	•	Novelties and specialties, metal:
	 Boxes for packing and shipping, metal 		except advertising novelties
	Chair frames, metal	•	Powder metal products, custom
	 Chests, fire or burglary resistive: metal 		molding
	 Collapsible tubes for viscous products, metal 	•	Reels, cable: metal
	Doors, safe and vault: metal	•	Safe deposit boxes and chests, metal
	Drain plugs, magnetic: metal	•	Safes, metal
	Drill stands, metal	•	Shims, metal
	Ferrules, metal	•	Spray nozzles, aerosol
	 Fountains, metal (except drinking) 	•	Stabilizing bars (cargo), metal
	Friction material, made from powdered metal	•	Strapping, metal
	Furniture parts, metal	•	Tablets, metal
	Hoops, metal: other than wire	•	Target drones for use by ships, metal
	Ice cream freezers, household, nonelectric: metal	•	Toilet ware, metal: except silver,
	Ironing boards, metal		nickel, silver, pewter and plated
	• Ladder assemblies, combination workstand: metal	•	Trophies, metal: except silver, nickel,
	Ladders, metal: portable		silver, pewter, and plated
	Linings, safe and vault: metal	•	Vaults, except burial vaults: metal
	.	•	Wheels, stamped metal, disc type:
			wheelbarrow, stroller, lawnmower

Industrial Machinery and Equipment Finishing Operations

Source	SIC	Description
DEQ Q&A	3531	Establishments primarily engaged in construction machinery manufacturing that includes establishments primarily engaged in manufacturing heavy machinery and equipment of types used primarily by the construction industries, such as bulldozers; concrete mixers; cranes, except industrial plan overhead and truck-type cranes; dredging machinery; pavers; and power shovels. Also included in this industry are establishments primarily engaged in manufacturing forestry equipment and certain specialized equipment, not elsewhere classified, similar to that used by the construction industries, such as elevating platforms, ship cranes and capstans, aerial work platforms, and automobile wrecker hoists.
6X Rule		Establishments primarily engaged in construction machinery manufacturing. The construction machinery manufacturing industry sector of this source category includes establishments primarily engaged in manufacturing heavy machinery and equipment of types used primarily by the construction industries, such as bulldozers; concrete mixers; cranes, except industrial plant overhead and truck-type cranes; dredging machinery; pavers; and power shovels. Also establishments primarily engaged in manufacturing forestry equipment and certain specialized equipment, not elsewhere classified, similar to that used by the construction industries, such as elevating platforms, ship cranes, and capstans, aerial work platforms, and

automobile wrecker hoists.

SIC Manual

Establishments primarily engaged in manufacturing heavy machinery and equipment of a type used primarily by the construction industries, such as bulldozers; concrete mixers; cranes, except industrial plant overhead and truck-type cranes; dredging machinery; pavers; and power shovels. Also included in this industry are establishments primarily engaged in manufacturing forestry equipment and certain specialized equipment, not elsewhere classified, similar to that used by the construction industries, such as elevating platforms, ship cranes and capstans, aerial work platforms, and automobile wrecker hoists. Establishments primarily engaged in manufacturing mining equipment are classified in Industry 3532; those manufacturing well-drilling machinery are classified in Industry 3536; and those manufacturing industrial truck-type cranes are classified in Industry 3537.

- Aerial work platforms, hydraulic or electric truck or carrier mounted
- Aggregate spreaders
- Asphalt plants, including travel-mix type
- Automobile wrecker hoists
- Backfillers, self-propelled
- Backhoes
- Ballast distributors (railway track equipment)
- Batching plants, bituminous
- Batching plants, for aggregate concrete and bulk cement
- Blades for graders, scrapers, dozers, and snowplows
- Breakers, paving
- Buckets, excavating: e.g., clamshell, concrete, dragline, drag scraper,
- Bulldozers, construction
- Cab, construction machinery
- Capstans, ship
- Carriers, crane
- Chip spreaders, self-propelled
- Chippers, commercial: brush, limb, and log
- Concrete buggies, powered
- Concrete grouting equipment
- Concrete gunning equipment
- Concrete plants
- Construction machinery, except mining
- Cranes, construction
- Cranes, except industrial plant
- Crushers, mineral: portable
- Derricks, except oil and gas field
- Distributors (construction machinery)
- Ditchers, ladder: vertical boom or wheel
- Dozers, tractor mounted: material moving
- Draglines, powered
- Drags, road (construction and road maintenance equipment)
- Dredging machinery
- Excavators: e.g., cable, clamshell, crane, derrick,

- Log splitters
- Logging equipment
- Mixers: e.g., concrete, ore, sand, slag, plaster, mortar, bituminous
- Mortar mixers
- Mud jacks
- Pavers
- Pile driving equipment
- Planers, bituminous
- Plaster mixers
- Plows, construction: excavating and grading
- Post hole diggers, powered
- Power cranes, draglines, and shovels
- Pulverizers, stone: portable
- Railway track equipment: e.g., rail layers, ballast distributors
- Rakes, land clearing: mechanical
- Road construction and maintenance machinery
- Rock crushing machinery, portable
- Rollers, road
- Rollers, sheepsfoot and vibratory
- Sand mixers
- Scarifiers, road
- Scrapers, construction
- Screeds and screeding machines
- Screeners, portable
- Ship cranes and derricks
- Ship winches
- Shovel loaders
- Shovels, power
- Silos, cement (batch plant)
- Slag mixers
- Snowplow attachments
- Soil compactors: vibratory
- Spreaders and finishers, construction
- Subgraders, construction equipment

	dragline, power	Subsoiler attachments, tractor-
•	Extractors, piling	mounts
•	Finishers and spreaders, construction	 Surfacers, concrete grinding
•	Finishers, concrete and bituminous: powered	Tampers, powered
•	Grader attachments, elevating	Tamping equipment, rail
•	Graders, road (construction machinery)	 Teeth, bucket and scarifier
•	Grapples: rock, wood, etc.	Tractors, construction
•	Grinders, stone: portable	Tractors, crawler
•	Hammer mills (rock and ore crushing machines),	Tractors, tracklaying
	portable	Trenching machines
•	Hammers, pile driving	 Trucks, off-highway
•	Line markers, self-propelled	Vibrators for concrete construction
•	Locomotive cranes	Wellpoint systems
		Winches, all types
		Work platforms, elevated

Industrial Machinery and Equipment Finishing Operations

Source	SIC	Description	
DEQ Q&A	3533	Establishments primarily engaged in oil and gas field establishments primarily engaged in manufacturing rand gas fields or for drilling water wells, including po	nachinery and equipment for use in oil
6X Rule		Establishments primarily engaged in oil and gas field field machinery manufacturing industry sector of this primarily engaged in manufacturing machinery and e for drilling water wells, including portable drilling rigs	source category includes establishments quipment for use in oil and gas fields or
SIC Manual		Establishments primarily engaged in manufacturing machinery and equipment for use in oil and gas fields or for drilling water wells, including portable drilling rigs. Establishments primarily engaged in manufacturing offshore oil and gas well drilling and production platforms are classified in Industry 3731.	
		 Bib, rock: oil and gas field tools Derricks, oil and gas field Drill rigs, all types Drilling tools for gas, oil, or water wells Gas well machinery and equipment 	 Oil and gas field machinery and equipment Water well drilling machinery Well logging equipment Well surveying machinery

Industrial Machinery and Equipment Finishing Operations

Source	SIC	Description
DEQ Q&A	3561	Establishments primarily engaged in pumps and pumping equipment manufacturing that
		includes establishments primarily engaged in manufacturing pumps and pumping equipment
		for general industrial, commercial, or household use, except fluid power pumps and
		motors. This category includes establishments primarily engaged in manufacturing domestic
		water and sump pumps

6X Rule	Establishments primarily engaged in pumps and pumping equipment manufacturing. The pumps and pumping equipment manufacturing sector of this source category includes establishments primarily engaged in manufacturing pumps and pumping equipment for general industrial, commercial, or household use, except fluid power pumps and motors. This category includes establishments primarily engaged in manufacturing domestic water and sump pumps.		
SIC Manual	Establishments primarily engaged in manufacturing pumps and pumping equipment for general industrial, commercial, or household use, except fluid power pumps and motors. Included are establishments primarily engaged in manufacturing domestic water and sump pumps. Establishments primarily engaged in manufacturing fluid power pumps and motors are classified in Industry 3594; those manufacturing measuring and dispensing pumps for gasoline service station use are classified in Industry 3586; those manufacturing vacuum pumps, except laboratory, are classified in Industry 3563; those manufacturing laboratory vacuum pumps are classified in Industry 3821; and those manufacturing pumps for motor vehicles are classified in Industry 3714. Cylinders, pump Domestic water pumps Hydrojet marine engine units Pumps, oil well and oil field		

Electrical and Electronic Equipment Finishing Operations

Source	SIC	Description		
DEQ	3621	Establishments primarily engaged in manufacturing of motors and generators (except engine		
Q&A		starting motors) such as power generators; motor generator sets; railway motors and control		
		equipment; and motors, generators and cor	ntrol equipment for gasoline, electric, and oil-electric	
		buses and trucks.		
6X Rule		Establishments primarily engaged in manufacturing motors and generators. The motors and		
		generators sector of this source category in	cludes establishments primarily engaged in	
		manufacturing electric motors (except engir	ne starting motors) and power generators; motor	
		generator sets; railway motors and control e	equipment; and motors, generators and control	
		equipment for gasoline, electric, and oil-elec	ctric buses and trucks.	
SIC		Establishments primarily engaged in manufacturing electric motors (except engine starting		
Manual		motors) and power generators; motor generator sets; railway motors and control equipment; and		
		motors, generators, and control equipment for gasoline, electric, and oil-electric buses and		
		trucks. Establishments primarily engaged in manufacturing turbo-generators are classified in		
		Industry 3511; those manufacturing starting motors and battery charging generators for internal		
		combustion engines are classified in Industry 3694; and those manufacturing generators for		
		welding equipment are classified in Industry 3548.		
		Armatures, industrial	Motor housings	
		Coils for motors and generators	Motors, electric: except engine starting motors and	
		Collector rings for motors and generators	gear motors	
		Commutators, electric motor	Power generators	
		Control equipment for buses and trucks	Railway motors and control equipment, electric	
		Converters, phase and rotary: electrical	Resolvers	
		equipment	Rotary converters (electrical equipment)	
		Dynamos, electric: except automotive	Rotor retainers and housings	
		Dynamotors	Rotors for motors	

 Exciter assemblies, motor and generator Frequency converters (electric generators) Generating apparatus and parts, electrical: except internal combustion Generator sets: gasoline, diesel, and dual fuel Generators and sets, electric: except internal combustion engine, Generators for gas-electric and oil-electric vehicles Generators for storage battery chargers, except internal combustion Inverters, rotating: electrical 	 Servomotors Sliprings for motors and generators Starting equipment, for streetcars Stators for motors Storage battery chargers, engine generator type Synchronous condensers and timing motors, electric Synchros Torque motors, electric
 Inverters, rotating: electrical Motor generator sets, except automotive and turbo generators 	

Electrical and Electronic Equipment Finishing Operations

Source	SIC	Description
DEQ Q&A	3699	Establishments primarily engaged in manufacturing of electrical machinery, equipment, and supplies, not elsewhere classified such as high energy particle acceleration systems and equipment, electronic simulators, appliance and extension cords, bells and chimes, insect traps, and other electrical equipment and supplies, not elsewhere classified.
6X Rule		Establishments primarily engaged in manufacturing electrical machinery, equipment, and supplies, not elsewhere classified. The electrical machinery equipment and supplies industry sector of this source category includes establishments primarily engaged in high energy particle acceleration systems and equipment, electronic simulators, appliance and extension cords, bells and chimes, insect traps, and other electrical equipment and supplies not elsewhere classified.
SIC Manual		Establishments primarily engaged in manufacturing electrical machinery, equipment, and supplies, not elsewhere classified, including high energy particle acceleration systems and equipment, electronic simulators, appliance and extension cords, bells and chimes, and insect traps.

- Accelerating waveguide structures
- Amplifiers; magnetic, pulse, and maser
- Appliance cords for e.g., electric irons, grills, waffle irons-mfpm
- Atom smashers (particle accelerators)
- Bells, electric
- Betatrons
- Chimes, electric
- Christmas tree lighting sets, electric
- Clothing, electrically heated
- Cyclotrons
- Door opening and closing devices, electrical
- Dynamotrons
- Electric fence chargers
- Electron beam metal cutting, forming, and welding machines
- Electron linear accelerators
- Electrostatic particle accelerators
- Extension cords, made from purchased insulated wire
- Flight simulators (training aids), electronic

- Flytraps, electrical
- Gongs, electric
- Grids, electric
- Lamps, insect: electric
- Laser welding, drilling and cutting equipment
- Linear accelerators
- Logs, fireplace: electric
- Maser amplifiers
- Ornaments, Christmas tree: electric
- Outboard motors, electric
- Particle accelerators, high voltage
- Teaching machines and aids, electronic
- Trouble lights-mfpm
- Ultrasonic cleaning equipment, except medical and dental
- Ultrasonic generators sold separately for inclusion in tools and
- Ultrasonic welding machines and equipment
- Waveguide pressurization equipment
- **Q2:** A secondary or separate facility not affected by the 6X rule (their "primary" SIC <u>is not</u> listed in the SIC code Table) supports a facility that <u>is</u> affected by the rule (their "primary" SIC <u>is</u> listed in the table). Is this secondary or separate facility also affected by the rule?
- A: If the "primary" SIC code of the secondary or separate facility is not listed in the table, and therefore not affected by the 6X rule, then that facility <u>is not</u> subject to the rule regardless of the work they do to support another facility affected by the rule.
- **Q3:** A facility has reviewed the SIC Code Table and discussed their "primary" SIC code with the Census Department. They believe their "primary" activity is not subject to the 6X rule, even though their SIC code <u>is</u> listed in the table. This is because they believe their "primary" activity should be classified under a different SIC code than what they currently use. The new SIC code would not be listed in the table. Should they be able to change their SIC code, even though the facility is conducting subject activities for a subject facility on materials containing MFHAP?
- A: If the only clients a company has are affected by the 6X rule, then the "primary" activity being performed at the company would probably be covered by their current SIC code. This is because the description of their "primary" activity would undoubtedly be similar to, or the same as, one of the SIC codes affected by the rule.
- If these affected clients are the only ones they do business with, the SIC code is probably appropriate. If the facility also has clients who are not affected by the 6X rule, and this work constitutes 50% or more of their business (see "primarily engaged" in 40 CFR 63.11522), then they may be correct to change their code.

DEQ staff will evaluate the description of a facility's "primary" activity to verify the SIC.

Q4: Since the 6X NESHAP is limited to "area sources" and excludes major sources, does the rule apply to Title V facilities?

A: Not in all cases. Most Title V permit holders are major Hazardous Air Pollutant (HAP) sources, but not all. The only certain method to determine applicability is to use the area/major (10/25 TPY) HAP "classification" of a source. This is because a source can be an area source of HAP but a major source for criteria pollutants, regardless of whether the 6X rule applies. The area/major HAP "classification" of a source is independent of the rule being applied. So, in this case HAP emissions (the 5 target metals emitted) from these processes need to be included in any calculations used to determine whether a facility is a major or area source.

Q5: A local metal fabrication shop is presently classified as an area source. They receive valve pieces at their shop and assemble them by hand. They do no abrasive blasting, welding, grinding or metal cutting. They do however, surface coat the valves after assembly, and have addressed Subpart 6H (Paint Stripping and Miscellaneous Surface Coating Operations). Since this site does not fabricate or finish the metal on any of the metal parts, are they subject to subpart 6X, and if so do they still need to submit an initial notification?

A: <u>If the facility only assembles pieces by hand:</u>

• The primary SIC code is likely not listed in the SIC code table and if not they would not be affected by the 6X rule. Even if the facility was subject to the rule based on their primary SIC code, they do not perform any of the affected activities specifically outlined in the rule test, so their activities would not be affected by the rule. If the facility is not affected, or they do not perform any of the affected activities, then none of the requirements of the rule would apply to the facility.

If they "were" subject to the 6X rule:

• Only the surface coating requirements in 6X would apply (these requirements are identical to those found in 6H).

If they "were not" subject to the 6X rule:

• The facility must determine if the surface coating performed is affected by the 6H rule and if so, comply with the requirements of this rule.

Initial notifications:

DEQ requests that all potentially affected sources fill out and submit an initial notification to verify whether or not the source is affected by either the 6X rule or the 6H rule (whichever applies), and if not, why. This way DEQ can make adjustments to its database.

A facility can only be affected by one rule at a time. In this case either the 6X rule or the 6H rule applies, never both. The surface coating requirements of the 6H rule were incorporated into the 6X rule for this reason.

Q6: The preamble to the proposed and final rule for 6X states that the table is not intended to be exhaustive, but rather provide a guide for readers regarding entities likely to be affected by this action. That being said; why would a source with a 'primary' SIC code of 2710 (Electrical Equipment Manufacturing) be subject to the NESHAP, and not a source with a 'primary' SIC

code of 2740 (Electric Lighting Equipment Manufacturing), if both sources have the potential to emit MFHAPs through activities identified in Subpart 6X?

A: Regarding emissions from sources similar to those in one of the 6X nine metal fab categories. There are many other sources with similar operations and emissions not covered by the 6X rule. The explanation for this lies in the history of the statutory requirements for this rule, and as described on the EPA urban air toxics website. The rule history can be found in the "preamble" to both the proposed and final rule. The proposed rule has more detail and is available at: http://www.epa.gov/ttn/atw/area/fr03ap08.pdf. In summary, Congress and EPA in 1990 identified the primary sources of urban air pollution. The emissions from the targeted nine metal fab source categories contributed to the emissions found in the study areas at that time. As a result, EPA was required by law to develop this area source rule. In the 2000's, most sources in these nine categories had begun controlling emissions for various reasons (OSHA rules, state regulations, industry awareness). Therefore, no net gain in emissions reductions were attributed to this rule. For this reason EPA did not see a need to expand the rule to include similar sources since (a) they were not required by law to do so, and (b) EPA believed it was likely these additional sources were similarly controlled.

Q7: What about facilities that just do abrasive blasting? If 50 percent of the work performed by such a facility is done on materials/equipment for other companies that *are* subject to the 6X rule, is that job shop considered an affected facility?

A: These job shops are only subject to the rule if <u>their</u> 'primary' SIC code is listed in the table. The types of activities at the facility that may be subject to the 6X rule requirements is determined <u>after</u> an applicability determination has been made using the "primary" SIC code.

Q8: Source category 7 in 63.11514(a) is "Iron and Steel Forging" and not "Iron or Steel Forging". Just to make sure, would it be correct to assume that this subpart would apply to a facility forging only steel and no iron?

A: This rule applies to both iron forging and steel forging. The proper way to make an applicability determination is to look at the SIC code the facility uses to describe their primary activities, then refer to DEQ's SIC Code Table above to see if the code is listed.

Q9: Is remanufacturing included in EPA's understanding of "manufacture, fabricate, or forge" in the definition of "primarily engaged"?

A: You should use the SIC codes in the table above to determine applicability. If remanufacturing is classified under an affected code, then it would be considered the same as manufacturing.

SECTION 3

<u>Applicability – MFHAP Content of Materials</u>

Q1: 40 CFR 63.11514(b) of the rule refers to use of materials that "contain or have the potential to emit" metal fabrication or finishing metal HAP (MFHAP). Please clarify the use of the phrase "potential to emit".

- A: The phrase "potential to emit" here simply means if a source uses the targeted MFHAPs, or materials that contain them as defined and quantified in the 6X rule, then the facility is subject to the rule.
- **Q2:** Assuming a facility is subject to the 6X rule, how does one determine if the steel being used by the facility contains MFHAP at levels sufficient to require compliance with the rule?
- A: That information should be contained in the Material Safety Data Sheet (MSDS) available from the material vendor (and on site). In general, stainless steel contains chromium, and dry abrasive blasting, machining, dry grinding and polishing with machines, and welding operations on stainless steel will require compliance with the rule, as long as they are performed at a facility which is classified in one of the SICS associated with the rule.
- Q3: With regard to the definition of MFHAP content in materials. If welding rod/wire contains less than the deminimus levels in the rule (.1% and 1%) as per the MSDS, and the steel being welded contains more. What should be considered: the welding consumables (i.e., welding rod or wire), or both the consumables and the steel being welded?
- A: Just the welding rod and/or wire since only the welding material being consumed during application to the steel has the potential to emit MFHAP. The MFHAP in the base metal (steel) is not considered to have the potential to be emitted in this situation.
- **Q4:** When determining whether a facility "uses materials that contain MFHAP… or has the potential to emit MFHAP", should the composition of (weight percent MFHAP) of the following be considered: (a) blasting grit, (b) welding rod, (c) the material of the part being welded, blasted, machined, ground, polished, etc.?
- A: Yes. In all of these cases the materials used or with the potential to emit the target MFHAPs should be considered. The key is to identify the component with the potential to emit:

<u>Welding</u> - Only the MFHAP content of the consumable welding rod or wire needs to be considered. In most cases the content of the consumable welding wire/rod matches the MFHAP content of the material being welded.

<u>Painting</u> - Only the paint has the potential for emitting MFHAP, not the substrate or metal part being painted. Therefore only the paint which is "spray applied" needs to be analyzed for MFHAP to determine applicability to 6X or 6H.

<u>Dry abrasive blasting</u> - The substrate <u>AND</u> the blast material have the potential for being emitted since the purpose of the blasting is to remove the surface material on the part being blasted; so in this case both the blasting material and the part being blasted should be analyzed. However, because most blast material doesn't contain MFHAP, it's typically the item being blasted which is relevant (but check both).

<u>Dry machining</u> - During machining portions of the metal substrate are being removed, therefore, the metal being machined should be evaluated.

Q5: Regarding the definitions of "Material containing MFHAP" and "Metal fabrication and finishing HAP (MFHAP)" in 40 CFR 63.11522: (1) the definition of MFHAP includes metal compounds. When determining if a material contains MFHAP, should the weight percent of the

- compound be multiplied by the ratio of the metals molecular weight (MW) to the compounds MW to obtain percent by weight (as the metal)?
- (2) Is it correct to assume that the "and" in the second sentence of the "Material containing MFHAP" definition is ambiguous and should actually be understood as "or" so that the material does not need to contain manganese "and" another metal to meet the definition?
- A: (1) Yes, that is the correct way to calculate percent by weight of the metal only... and not the weight of the total metal compound.
- (2) Yes, this is also correct. If a material contains any of the listed MFHAP at the listed levels (≥ 0.1 or 1%) then it is a "Material containing MFHAP".
- **Q6:** Regarding dry abrasive blasting performed within a vented enclosure using an abrasive consisting of glass beads that do not contain MFHAP. The substrates being blasted are stainless steel and mild steel. Since they may contain chromium, are there applicable testing requirements to determine MFHAP content and the emissions from the blasting of these substrates? OR, is this an affected activity because the substrate has the potential to emit MFHAPs from undergoing dry abrasive blasting?
- A: As mentioned before, dry abrasive blasting is an affected activity if the substrate <u>OR</u> the blasting material contain MFHAP. In the case of the blasting material with no MFHAP; if the material being blasted contains MFHAP as defined in the rule, and those HAPs are being broken down and dislodged by the blast material, then DEQ assumes these materials have the potential to emit MFHAP.
- **Q7:** A facility plans to use no more than 10 gallons per year of a target HAP-containing coating. The MSDS says it contains 0-5 percent HAP by weight. The amount used is less than the 0.1 percent limit in the definition of material containing MFHAP. Is it DEQ's intent to include all paints above the 0.1 percent limit no matter how much the facility uses?
- A: Yes. However, note that subpart 6X is only applicable to spray painting performed with spray guns (see 40 CFR 63.11522, "What definitions apply to this subpart?"). Therefore, if this paint is "touch up" and applied using a non-atomizing technique (brushes, rollers, etc), then the painting process does not fall under subpart 6X. We found that facilities that used small quantities of paint did not apply these paints with spray guns.
- **Q8:** The rule defines an MFHAP threshold based on the OSHA classification of a carcinogen. So any carcinogen as per OSHA has a threshold of 0.1%, and noncarcinogens have a threshold of 1%. I could not find lead on the list of carcinogens from OSHA. I would like to know if the thresholds in this rule apply only based on the classification by OSHA. It seems like lead and nickel are not carcinogens as per OSHA and should be subject to the 1% threshold instead of the 0.1%. The regulatory language from the subpart is: *The definition of "containing" MFHAP is identical to the Occupational Safety and Health Administration (OSHA) definitions specified in 29 CFR 1910.1200(d)(4), where carcinogens are contained in quantities of 0.1 percent by mass or more, and 1.0 percent by mass or more for noncarcinogens as shown in formulation data provided by the manufacturer or supplier, such as the MSDS for the material. For MFHAP, this corresponds to materials that contain cadmium, chromium, lead, or nickel in amounts greater*

than or equal to 0.1 percent by weight (as the metal), and manganese in amounts greater than or equal to 1.0 percent by weight (as the metal).

A: Both NIOSH and OSHA define nickel as a potential carcinogen or a chemical that reasonably can be anticipated to be a human carcinogen (based on a combination of human and animal studies). See http://www.cdc.gov and http://www.osha.gov/. The "lead" that EPA regulates in 40 CFR part 63 is actually "lead compounds" since elemental lead is regulated through another part of the Clean Air Act and is not a HAP. Lead compounds, based on outdoor exposures, were found by EPA to be a potential carcinogen from animal studies and is considered a HAP. See http://yosemite.epa.gov/r10/airpage.nsf/. While OSHA and EPA have many similarities in their treatment of chemical exposures, OSHA bases their studies on mostly indoor 8-hour exposures to human workers whereas EPA has a broader reach to all of the environment and for longer exposure periods. The intention here is not to debate the merits of OSHA vs. EPA but to give some relief to facilities that use only small amounts of HAP, since it is likely these small sources of HAP did not contribute to the HAP inventory in 1990 on which the Urban Air Toxic program was based. OSHA's material content limits used in the 6X rule and other EPA HAP rules were found to be a useful metric since the limits had already been established by OSHA, and also because there was no comparable metric readily available within EPA. This metric is also used in the 40 CFR Part 63 subpart 6H rule (surface coating and paint stripping) developed prior to subpart 6X, and is also used in other rules.

Q9: Please verify that the MFHAP determination is triggered under subpart 6X by the concentration of the metal rather than the concentration of the compound containing the metal? If so, it would seemingly make subpart 6X significantly less stringent than 6H (Miscellaneous Surface Coating), which is triggered by the concentration of the compound rather than the metal it contains. 40 CFR 63.11180 (Subpart 6H): Target HAPs are compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd). Target HAP containing coating means a spray-applied coating that contains any individual target HAP that is an Occupational Safety and Health Administration (OSHA)—defined carcinogen as specified in 29 CFR 1910.1200(d)(4) at a concentration greater than 0.1 percent by mass, or greater than 1.0 percent by mass for any other individual target HAP compound...Why would the rule differ from the focus in Clean Air Act 112(b) on compounds as the HAPs to be regulated?

A: The rules differ because subpart 6X deals primarily with pure metals, while Subpart 6H deals primarily with paint pigments containing metal compounds (although 6X does include some painting). The OSHA standards and OSHA health thresholds on which the NESHAP limits were based cite the pure metals because these are what contribute to negative health effects and not the other chemicals combined with the metal in a metal compound.

SECTION 4

<u>Applicability – Exemptions</u>

Q1: Please clarify the military exemptions listed in subpart 6X. Several facilities have military contracts to perform various surface coating and metal fabrication processes. They may not

handle munitions, but potentially could. An example is a facility that fabricates and coats containers for the military used in various operations like kitchens, latrines, and weapons storage on battlefields. Another facility might coat trailers used to haul various products for the military, which may include weapons. Is the intent of this rule to include those operations, or wait and cover them under the future military NESHAP? We understand the exclusion of surface coating performed at military installations, but do not understand the specific exclusion of surface coating of equipment used for transporting munitions performed at nonmilitary facilities.

- A: Again, keep in mind that applicability must first be determined using the primary SIC code. If the containers are built <u>specifically and exclusively</u> for transporting military munitions then the containers would be exempt as defined in 40 CFR 63.11522, "...manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such state), or equipment <u>directly and exclusively used</u> for the purposes of transporting military munitions." This exemption would not cover those activities you describe if the containers used are generic and can be used for non military activities.
- Q2: In the preamble to subpart 6X, there are multiple references specifically stating that aerospace facilities are exempt from the rule, but there is no specific exemption for aerospace facilities within the rule itself, except in 40 CFR 63.11519 under "aerospace components" which lists an example of operation type. This seems contradictory to the statements in the preamble. Can you clarify whether aerospace facilities are intended to be covered by subpart 6X?
- A: Subpart 6X only covers the 9 listed source categories. The references to aerospace facilities in the preamble are there in response to specific comments received on the proposal, and are not codified in the rule text. EPA does not list the categories that are not covered, only those that 'are' covered by the rule (the nine source categories). Aerospace manufacturing facilities are not one of the nine source categories. However, facilities that fabricate or finish aerospace components are not exempted from the rule since they could potentially be classified in one of the nine affected categories.
- Q3: With regard to the (removed) requirement for visual emissions testing for welding operations at facilities using less than 2,000 pounds per year (lb/yr) of welding rod or wire containing MFHAP. Our facility only uses welding "rod" for maintenance operations, while our production welding uses more than 2,000 lb/yr of welding "wire." Does the rule say that as long as you use less than 2,000 lb of welding rod, that tiered visual monitoring is not required...even for metal inert gas (MIG) welding or gas metal arc welding (GMAW) with wire?
- A: First of all maintenance welding is not regulated as per the exemptions set out in the rule in 40 CFR 63.11514 (f). Second, "wire" and "rod" for purposes of this rule are considered to be the same (i.e., a consumable welding material), and both are covered by the rule if they contain MFHAP. Therefore, if you are using more than 2,000 lbs per year of MFHAP containing wire or rod (excluding exempted activities like "maintenance"), then monitoring requirements are applicable and must be complied with.
- **Q4:** Please clarify the intent of the phrase "primary operation". Example: if a business primarily sells motors, but occasionally performs repairs including dry polishing (or another

affected activity) does the rule apply to the facility? Are there any exemptions and/or threshold limits that would help explain rule intent?

A: First, as mentioned before, the facility must fall into one of the nine metal fabrication and finishing source categories based on the primary SIC code. If the SIC is an affected code then you determine if they are primarily engaged (same as primary operation). If both of these are yes, then you look at the affected activities.

40 CFR 63.11514 Am I subject to this subpart?

(f) This subpart does not apply to tool or equipment repair operations, facility maintenance, or quality control activities as defined in 40 CFR 63.11522.

Primarily engaged means the manufacturing, fabricating, or forging of one or more products listed in one of the nine metal fabrication and finishing source category descriptions, where this production represents at least 50 percent of the production at a facility, and where production quantities are established by the volume, linear foot, square foot, or other value suited to the specific industry (e.g., work hours, etc). The period used to determine production should be the previous continuous 12 months of operation. <u>Facilities must document and retain their rationale for the determination that their facility is not "primarily engaged"</u> pursuant to 40 CFR 63.1 O(b)(3) of the part 63 "General Provisions."

SECTION 5

<u>Applicability – Process-Specific</u>

Q1: If a painting operation only uses spray cans, is the 6H painting rule applicable?

A: 40 CFR 63.11522 states (underlining added here only):

For the purposes of this subpart, spray-applied painting <u>does not include</u> (1) Paints applied from a hand-held device with a paint cup capacity that is less than 3.0 fluid ounces. (2) Surface coating application using powder coating, hand-held, <u>nonrefillable</u> aerosol containers, or <u>nonatomizing</u> application technology, including, but not limited to, paint brushes, rollers, hand wiping, flow coating, dip coating, electrodeposition coating, web coating, coil coating, touch-up markers, or marking pens.

- **Q2:** If a facility subject to subpart 6X paints using MFHAP-free paints, but uses welding wire that contains one or more of the MFHAPs, will that facility then be subject to all the requirements of the rule, including those associated with painting?
- A: If they are not using paints containing MFHAP, then they are not required to comply with the requirements found in 40 CFR 63.11516(d), "What are my standards and management practices?" for painting activities. However, they must document that they are continuing to use MFHAP free paint in their annual reporting under the rule. For welding, all requirements would apply.
- **Q3:** How are subparts 6H (paint stripping and miscellaneous surface coating) and 6X applicable to metal coating operations? There seems to be some differing opinions about which rule applies when painting something that's not a motor vehicle or mobile equipment at

non-manufacturing facilities, such as reconditioning aluminum boats, propane tanks, dumpsters, etc.

A: Under the 6X rule, if the facility is in one of the nine SIC code categories (using the affected SIC code list) and they "spray" apply paint containing MFHAP then the painting requirements in 6X apply. If 6X does not apply to the facility, then the requirements in 6H for miscellaneous coating would apply "if" MFHAP coatings are used. If spray applied painting is performed using coatings with no MFHAPs, or they are using "non-aerosolizing" methods, then the painting requirements in neither 6X nor 6H would apply to the facility.

Q4: If a facility only uses welding wire for welding operations instead of welding rod as described in the rule, does this affect applicability of the rule?

A: For the purposes of the rule, welding "wire" and welding "rod" (i.e., the consumable welding material) are the same. So, if any consumable welding material contains MFHAP, then the rule applies. Note: welding filler is also a consumable material and used in TIG welding operations. Using filler material is however, one of the several work practice methods in the 6X rule that can be used.

Q5: A company has a manufacturing location whose primary SIC code falls into one of the nine categories. The company does a lot of spot welding. Spot welding does not generate "welding fumes". The smoke generated during spot welding actually comes from the oil the metal has been treated with. This oil is applied during the milling process to prevent the metal from oxidizing or rusting. Therefore there are no actual metal fumes in the smoke (assuming there were no metals in the rust preventative oil). It appears that because no welding rods are used in any manufacturing operations at this facility that the regulation does not apply to this facility. Is this correct?

A: If the spot welding uses no consumables (i.e., welding <u>rod or wire</u>), then this welding activity would not be covered by the rule. This is because there would be no consumables in the process and therefore no MFHAP emissions from the activity. This is the basis for determining if a regulated activity is truly "affected" by the rule. <u>If consumables "are" used in this welding process and they contain MFHAP</u>, then the rule requirements would apply <u>regardless of the type or amount of welding performed</u>. Remember, there may also be other processes at the facility that have the potential to emit MFHAP that would be subject to requirements in the rule, so be sure to address "all" activities to see if they are "affected".

Q6: Does subpart 6X cover the use of laser welders for spot welding and cutting? A laser welder melts two pieces of metal together to join them. There are no fillers or consumables employed. This same welding unit can be used to cut metal, which does not seem to match any definition of "machining" as defined in the rule. Is laser cutting a covered activity under the rule? It technically meets the definition of "machining" in that it is a dry process in which metal is cut. However, it is not typically considered machining. It is closer to welding with the application of heat to the metal, but clearly does not meet the definition of welding.

A: The processes as described would not be covered by the rule because there are no consumables, and the cutting does not fall under the intent of the definition for machining.

Q7: Is abrasive blasting using CO2 (either pelletized or using the "snow blower" process) considered dry abrasive blasting under subpart 6X?

A: No, it is not. See 40 CFR 63.11522: "Dry abrasive blasting means cleaning, polishing, conditioning, removing or preparing a surface by propelling a stream of abrasive material..." "Dry abrasive" and "Material" apply to solid matter which can break up into particulate matter, a regulated criteria pollutant. Carbon dioxide (CO2), either pelletized or otherwise would not apply.

Q8: Please clarify the definition of "Machining." In the initial list shearing is mentioned but forming is not. As the definition progresses, there is a definition of what forming includes. Are forming operations included in this definition?

A: Machines must be operated by some power supply to qualify as a "machine". Also, the machining process specifically excludes hand-held devices. Forming operations are included in the definition but only to the extent that it is not done by hand and does not involve employing fluids for lubrication or cooling. Outside of these situations, forming and machining are considered synonymous under the rule (see 40 CFR 63.11522, "What definitions apply to this subpart?").

Q9: Please clarify whether the regulation covers strictly dry machining, or both wet and dry.

A: The definition of machining provided in the rule specifically excludes processes "employing fluids for lubrication or cooling".

Q10: The definition of "Dry Grinding and Polishing" refers to "large stationary machines". Does this mean that hand grinders are exempt under this NESHAP?

A: Yes they are exempt. In 40 CFR 63.11522: The definition for "dry grinding and dry polishing with machines" states that "hand grinding, hand polishing, and bench top dry grinding and dry polishing are not included under this definition."

Q11: Are dry grinders defined by subpart 6X as "bench-scale devices" or as "fixed/stationary devices." Are grinders mounted on pedestals that have 6 to 10 inch diameter grinding wheels considered bench scale? If pedestal grinders "can" be picked up and moved but they remain stationary during operation, do they meet the following exclusion?: "Dry grinding and dry polishing with machines does not include dry grinding and dry polishing operations performed with hand-held or bench-scale devices."

A: This equipment is full size, and not bench-scale. Bench-scale refers to small handheld devices used on a counter (or bench.) Also, "bench top" is interpreted in the industry as the "ability" to be on a bench, not that it has to be on the bench when being used. This has to do with the size of the equipment as it relates to its ability to be hand held.

SECTION 6

Notifications, Reports, and Compliance Dates

Q1: Is there a requirement for an "Initial Notification of Applicability" for existing facilities in 40 CFR 63.9 or FR 42978? Please note that the question is not related to the "Notification of Compliance Status" requirement that was due by July 25, 2011. Several earlier rules had such a requirement so the state permitting agencies could incorporate the compliance requirements into an existing air permit.

A: I believe the "Initial Notification" is what you are thinking of when you say "Initial Notification of Applicability." There are two notices due for the rules as required by the "General Provisions" to part 63 (63.9(b) and (h)): <u>The Initial Notification</u> — The compliance date has passed, except for facilities just starting up, then it is required 120 days after startup. DEQ has requested this form be submitted by any facility that may be affected by the 6X rule. <u>Notification of Compliance Status</u> — The compliance date for this has passed, except for facilities just starting up, then it is required 120 days after startup.

Q3: What were the required submission dates for the initial notification and notification of compliance status?

A: For existing facilities: Initial Notification - July 25, 2011.

Notification of Compliance Status – Nov 22, 2011

For new facilities: Initial Notification – Nov 20, 2008 or 120 days after startup.

Notification of Compliance Status – Same as above

See http://www.epa.gov/ttn/atw/area/metfabb.pdf for a useful rule summary. This and other EPA/DEQ resources can be found on the small business webpage at: http://www.deq.state.or.us/aq/bap/neshap.htm. Internal guidance can be found on the intranet at: http://deq05/aq/permits.htm. A compilation of EPA area source rules and forms can be found here: http://www.epa.gov/ttn/atw/area/compilation.html.

- **Q2:** An existing facility wants to install a new process. If the facility is subject to subpart 6X and the proposed new process includes affected activities under the 6X rule (e.g., dry abrasive blasting), would the proposed affected activity need to be in compliance with subpart 6X at startup?
- A: It's the facility that's considered existing, not the activity. Since the compliance dates have passed for both existing and new facilities affected by the 6X rule, the subject activities (in this case dry abrasive blasting) would need to be in compliance with the requirements before the activity is started. There are rules about how much the new process can cost before it's considered a "major" modification that would trigger new source review. The general rule is 50 percent of the total capital cost of a new facility.
- **Q4:** Do the annual reporting requirements apply only to new sources or to existing sources as well? The rule appears to apply to both new and existing; however, there is a brochure on EPA's website which indicates it is only for new sources.
- A: Each affected facility must submit an annual report as per 40 CFR 63.11519(b). This would include new <u>and</u> existing affected sources. When in doubt, the text of the rule always takes precedence.
- (1) Annual certification and compliance reports. You must prepare and submit annual certification and compliance reports for each affected source (facility) according to the

requirements of paragraphs (b)(2) through (7) of this section. The annual certification and compliance reporting requirements may be satisfied by reports required under other parts of the CAA, as specified in paragraph (b)(3) of this section.

Q5: On the EPA's website there are sample documents for the Initial Notification and the Notification of Compliance Status. It appears as if these notifications are sent only to state agencies with delegation authority. On the other hand, the annual certification and compliance reports must be sent to the delegated state <u>and</u> the EPA Regional Office according to the part 63 "General Provisions" in 40 CFR 63.10(a), as referenced in 40 CFR 63.11519 (b)(2). Must the source submit the initial to the state and the compliance and annual reports to both?

A: The notifications should be sent to the entity that has delegated authority.

Q6: The annual certification and compliance report must contain the information in paragraphs (b)(4)(i) through (iii) of 40 CFR 63.11519, and the information specified in paragraphs (b)(5) through (9) of 40 CFR 63.11519 as applicable to each affected facility. Requirements in (b)(5) through (9) do not apply to welding performed, "if" the facility uses less than 2000 lbs of wire/rod per year. A direct reading of paragraphs (b)(4)(i) through (iii) would indicate that the company must submit only the company name and address and dates of the compliance period in the annual compliance report. However, reading paragraph (b)(3)(ii) of that same section would indicate that an exceedence of the 2000 lbs/yr welding wire/rod usage limit must be reported. Would it also be appropriate to include in the annual report the amount used even if the source is below 2000 lbs/yr? This would allow companies to certify something more meaningful than the date and address.

A: While not required, it would be useful to DEQ and the source to include that information.

Q7: Please provide clarification of the notification requirements in the 6X rule for a Fabricated Structural Metal Manufacturing facility primarily engaged in producing materials for the building construction industry that performs some spray painting. The facility only uses carbon steel in fabrication (*i.e.*, containing no MFHAP) and the paints do not contain any MFHAP. Do they still have to submit an initial and compliance notification for the facility?

A: <u>Initial notification:</u> Required by all facilities that may be affected by the 6X rule, and if not an explanation of why the rule does not apply.

If no MFHAP material is used and therefore no MFHAPS are emitted, then this form is all that must be submitted because the NESHAP does not apply.

For spray finishing, documentation such as MSDSs must be on site to prove that no spray coatings with the MFHAPS are being used.

Notification of Compliance Status: Required by all facilities affected by the 6X rule.

SECTION 7

Impacts of the Rule/Control Devices

Q1: Please tell me how the emission reductions of Hazardous Air Pollutants (HAP) and Volatile Organic Compounds (VOC) were calculated for the 6X rule. We were wondering if EPA had improved the methods used to calculate or estimate emissions reductions from these categories. Any information would be helpful.

A: EPA did not calculate the HAP emissions reductions resulting from this rule because they believe the rule mostly codified the status quo. EPA acquired information that led them to believe most facilities were already doing the practices required, and that any reductions as a result of implementing this rule would be minimal. Any VOC reductions from these facilities can be attributed to the control of non-HAP air pollutants. These VOC reductions are not required by this or any other HAP rule. EPA estimates that since the development of the 1990 urban HAP inventory, these nine source categories have reduced their emissions by 122 tons of MFHAP.

Q2: The rule requires the use of a "filtration control device" for several types of sources, including dry abrasive blasting. The definition of filtration control devices is fairly broad ("a control device that utilizes a filter to reduce the emissions of MFHAP and other PM"). Would a wet scrubbing system meet this definition?

A: If the wet scrubber can be demonstrated to achieve 85 percent overall capture and control of PM, then this device would be equivalent. In EPA's survey, no one reported using a scrubber for dry particulate control. The rationale for filtration is detailed in the preamble to the proposed rule: http://www.epa.gov/ttn/atw/area/fr03ap08.pdf
Briefly EPA's response states: "The control systems are composed of local capture devices with cartridge, fabric, or high-efficiency particulate air (HEPA) filters as control devices. These control systems are known to achieve 85 percent overall control of PM, as a surrogate for MFHAP, considering the efficiency of both the capture and control devices".

So the wet scrubber would need to be at least as efficient as these devices.

Q3: Can you provide a reference to any paint booth filter manufacturers/vendors that are presently marketing 98 percent PM control filter media that is compliant with subpart 6X?

A: Another EPA rule that preceded 6X may be of help to you. Below is an excerpt from the rule. You will need to look in the docket for the rule to find more information on vendors, etc.

Docket ID No. EPA-HQ-OAR-2005-0526 at www.regulations.gov National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (subpart 6H) from

Federal Register / Vol. 72, No. 179 / Monday, September 17, 2007 / Proposed Rules 52967: An EPA study entitled "Comparative Study of Spray Booth Filter System Efficiency", which is provided in the public docket for this rulemaking, determined that fiberglass and polyester fiber filters had superior performance, relative to other filter types such as polystyrene foam and cardboard baffle filters in controlling the heavy metals found in paint overspray, which are the

target HAP for these source categories. Therefore, based on our findings during site visits, the information provided by the industry on the most commonly used filters, and the EPA study on filter effectiveness and cost-effectiveness, we have determined that these fiberglass and polyester fiber filters represent generally available control technology (GACT) for controlling the heavy metals present in paint overspray. This rule would allow for the use of other types of paint overspray filters, but they would be required to achieve 98-percent filter efficiency. This alternative was included because EPA did not test all types of filters. The market may have already supplied filters equally as efficient, but these filters were not available for testing in the EPA study. They would however be representative of GACT. The EPA study on filter effectiveness and filter efficiency data provided by filter vendors formed the basis for the 98-percent filter efficiency. The limit represents a performance level that separates the fiberglass and polyester fiber filters from baffle type filters. The baffle type filters were shown in the EPA study to have poor performance in controlling fine particulate that can contain heavy metals.

*All manufacturer's and vendors of these types of filters those that can achieve 98% efficiency

Q4: How can I determine whether or not filter media will comply with subpart 6X?

A: For painting, the requirements in the rule for Metal Fabrication and Finishing (subpart 6X), are to comply with two equipment standards: (1) the use of low emitting and pollution preventing spray gun technology; and (2) the use of spray booths or spray rooms equipped with PM filters. The paint filters must achieve 98 percent control of airborne metals (lead, chromium, cadmium, nickel and manganese) as follows:

Spray Booth PM Control Requirement. The spray booths or spray rooms are to be fitted with fiberglass or polyester fiber filters or other comparable filter technology that has been demonstrated to achieve at least 98 percent control efficiency of paint overspray (also referred to as "arrestance"). For spray booths or spray rooms equipped with a PM filter, the procedure used to demonstrate filter efficiency must be consistent with the American Society of Heating, Refrigerating, and Air- Conditioning Engineers (ASHRAE) Method 52.1, "Gravimetric and Dust-Spot Procedures for Testing Air- Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992" (incorporated by reference, see 40 CFR 63.14). The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. For information on the availability of this material go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Compliance with the filter efficiency standard can also be demonstrated through data provided by the filter manufacturer. The test paint for measuring filter efficiency must be a high-solids bake enamel delivered at a rate of at least 135 grams per minute from a conventional (non-HVLP) air atomized spray gun operating at 40 pounds per square inch air pressure (psi); the air flow rate across the filter shall be 150 feet per minute. Affected facilities may use published filter efficiency data provided by filter vendors to demonstrate compliance with the 98 percent efficiency requirement and would not be required to perform this measurement.

SECTION 8

Management Practices: General

- **Q1:** Many sections of the 6X standard require facilities to operate equipment according to manufacturer's instructions. Two questions:
- (1) What if you have older equipment and no longer have and cannot obtain the manufacturer's instructions (e.g., the manufacturer has gone out of business)? and
- (2) What if after years of running the equipment you find that preventive maintenance schedules differ from what the manufacturer's instructions specify as acceptable?
- A: (1) In this case, instructions for a similar piece of equipment or a facility's standard operating plan may be used. Most old manuals and manufacturer's instructions can also be found on the internet.
- (2) In this case, if the schedules are documented in a facility operating plan <u>and</u> the equipment gives no indication of not operating properly at any time. If this is true, then a good case could be made that the facility is following proper operating procedures. Worst case scenario: an investigation shows that the manufacturer's instructions have not been followed during operation of this piece of equipment, and something happened that was very noticeable and/or that had a negative and noticeable consequence.

The facility must justify why deviation from the manufacturer's instructions has occurred. Legally, they are required to show that their actions did not contribute to the failure. So, they are taking a risk by deviating from the instructions, but if the facility has years of experience, the risk should be low. Also, most EPA rules, including subpart 6X say that alternative controls can be used if approved by the administrator, as provided in 40 CFR 63.6(g) of the "General Provisions" to part 63. A facility should start the process by submitting a request to their state agency to consider an alternate control.

SECTION 9

Management Practices: Painting

- **Q2:** A vendor asked what he could do to obtain DEQ certification for his painter training classes, stating that his classes meet the requirements of the NESHAP.
- A: DEQ does not endorse training programs, nor do they require specific training programs or contractors to be used. The training required by the rule is stated in the rule as being hands-on, in-house, or external classroom instruction covering the required elements.
- **Q3:** A manager wants to know if the 6H painter certification would also cover the 6X rule requirements. There seems to be considerable overlap in both requirements.
- A: You are correct that the training requirements in 40 CFR 63.11173(f)(2) (the 6H rule) are very similar to the training requirements in 40 CFR 63.11516(d)(6)(ii) (the 6X rule). Generally, if you are providing certification that a person has completed the training under 40 CFR 63.11173(f)(2) (the 6H rule) then they would also have satisfied the training requirements

under 40 CFR 63.11516(d)(6)(ii) (the 6X rule). Ultimately, the owner or operator needs to assure that all required training elements have been satisfied. The 6X rule at 40 CFR 63.11516(d)(6), requires that each owner or operator of an affected spray painting operation ensure and certify that all new and existing personnel, including contract personnel who spray apply paints, are trained in proper application. Under the 6X rule, the training program must include, at a minimum the items listed in 40 CFR 63.11516(d)(6)(i) through (iii).

Please note that the owner or operator alone bears responsibility for certifying training completion. The owner or operator may send painters to a vendor for training, and obtain the vendors' certification that training has been accomplished. However, the owner or operator needs to verify that the vendor-provided training included all required training elements. To the extent that the vendor did not provide training in all required elements, the owner or operator must supplement the training to ensure completion prior to certification.

SECTION 10

Management Practices: Welding

Q1: 40 CFR 63.11516(f)(2) states: You must implement one or more of the management practices specified in paragraphs (f)(2)(i) through (v) of this section to minimize emissions of MFHAP, as practicable, while maintaining the required welding quality through the application of sound engineering judgment. (i) Use welding processes with reduced fume generation capabilities; (ii) Use welding process variations which can reduce fume generation rates; (iii) Use welding filler metals, shielding gases carrier gases, or other process materials which are capable of reduced welding fume generation; (iv) Optimize welding process variables to reduce the amount of welding fume generated and (v) Use a welding fume capture and control system. The management practices are clear except item (v).

Are there specific guidelines/ requirements/engineering parameters available for the welding fume capture and control system?

A: For welding fume capture and control systems, you are required to obtain the manufacturer's specifications for the system and operate the system according to those specifications. The manufacturer's specifications and the instructions they contain would be the source of the guidelines, requirements, and engineering practices you need to follow. There are many different systems available, and DEQ avoids recommending specific brand names. An internet search using the terms "welding fume control" will locate several options.

Q2: Does the rule require all management practices to be implemented?

A: No. To be clear, the rule language at 40 CFR 63.11516(f)(2) regarding management practices specifies "one or more...as practicable". Each of the specified practices is sufficient in and of itself, although more control is required where "practicable," and may be especially needed if visible emissions are detected. A facility will need to be prepared to explain why any of the practices are not practicable if they are not in use at the facility.

Q3: When is a company required to implement additional management practices to reduce fume generation?

A: When they experience problems with their visible emissions observations (visible emissions are detected) and additional management practices must be implemented to avoid failing the observations.

Q4: Does a facility have to prepare a site-specific welding plan from the date of compliance?

A: No, the site-specific welding plan is only required when opacity exceeding 20 percent has been found while the facility is in Tier 3 of the observations schedule. See 40 CFR 63.11516(f)(7)(ii). This is made clearer in flowcharts 5 and 6 prepared for subpart 6X (see http://www.epa.gov/ttn/atw/area/metal fab flowcharts.pdf).

Q5: The rule seems to be silent on outdoor welding. Assuming management practices are implemented as practicable, is it reasonable to infer that the visible emissions limits and observations required by this section only apply to confined welding operations (e.g., one where a stack vent, or other discrete conveyance for emission exists)?

A: DEQ does not expect there to be much outdoor welding at sources affected by this rule since it appears that most affected facilities are businesses doing precision work. The act of welding a large number of products while avoiding contamination and environmental conditions (such as wind) during the welding process does not easily lend itself to outdoor welding. The exception would be situations, as in the fabricated structural metal manufacturing category, where objects are so large they are often handled in open air structures. In the case of outdoor processes or those performed in semi enclosed buildings, we recommend the same treatment as for abrasive blasting (40 CFR 63.11516 (a)(3)(ii)(A)). For abrasive blasting of objects greater than 8 feet in any one dimension that is performed outdoors, you must perform visual observations of fugitive emissions at the fence line or property border nearest to the outdoor dry abrasive blasting operation. This does not preclude observing in the vicinity of the welding, since performing the test closer to the source would be more conservative.

Q6: In Section 63.11516(f), Standards for Welding — if you use < 2,000 lb/yr of welding rod/wire with any of the MFHAPs, do you still have to follow 63.11516(f)(1) and (f)(2)? Say a facility uses 1,000 lb/yr of MFHAP containing rod/wire — would they need to follow one of the (5) management practice choices in (f)(2)?

A: Yes. All welding operations using welding consumables (rod/wire) containing MFHAP must comply with 63.11516(f)(1) and (2). Those using more than 2,000 lb/yr of welding consumables containing MFHAP must also comply with paragraphs (f)(3) through (8) which states: Specifically, this final rule requires that welding operations that annually use 2,000 pounds or more of welding rod/wire containing one or more MFHAP must perform visual emissions observations.

Welding operations that use less than 2,000 lbs/yr of welding rod/wire are subject only to the management practices found in those in (f) which states: Standards for welding. If you own or operate a new or existing welding affected source, you must comply with the requirements in

paragraphs (f)(1) and (2) of this section for each welding operation that uses materials that contain MFHAP, as defined in 40 CFR 63.11522, or has the potential to emit MFHAP.

- Q7: If welding fumes are emitted to a room, where should a person perform visible emissions observations of welding fugitive emissions in order to satisfy 40 CFR 63.11516(f)(3)? What if there is a filter system which is vented to the room? Does the rule expect the outlet of the filter to be assessed at the nearest doorway or HVAC vent to the outdoors? Is the rule intended to exclude sources which vent indoors?
- A: You should measure at the exit of the building closest to the room. Sources vented indoors are not excluded, but are not likely to result in visible emissions observed at the building exit. We assume that OSHA regulations would oversee the venting of exhaust inside buildings.

SECTION 11

Monitoring

- **Q1:** For facilities with many large exhaust points for the same process, where should visual emissions observations using Method 22 be performed? Should a company choose one emission point and consider that 'representative' of all operations?
- A: If the process is contained within a building, then the exit stack from the building is the best choice; otherwise, use the most representative point.
- Q2: Does 40 CFR 63.11517, Monitoring Requirements, paragraphs (c) and (d) relate to NON-Fugitive Emissions? (Paragraphs (a) and (b)(1) thru (b)(4) indicate they are for fugitive emissions and Method 22.) Paragraphs (c) and (d)(1) thru (d)(5) all deal with Method 9. So, is this indicating that paragraphs (c) and (d) deal with a process with a stack or vent?
- A: Both Method 22 (VE) and Method 9 (opacity) are to be used with the same source, as required by the rule. Both methods can apply to fugitive emissions or stack emissions, although stack emissions may be easier. In Method 9 there is nothing that states that only stacks are to be observed. "The qualified observer shall stand at a distance sufficient to provide a clear view of the emissions..." Note that there is an "if-then" relationship as well: Method 9 is only required "If" Method 22 yields a positive result.
- **Q3:** In the monitoring section of the rule (40 CFR 63.11517(d)(5)) it says, "If, after two consecutive months of testing..." This section is talking about the graduated schedule of Method 9 testing; it seems that the word "months" should be "quarters". Please clarify this.
- A: The first part is talking about the AVERAGE of the results and the second is talking about two consecutive readings where BOTH are below 20 percent. These two sections are actually set up for two different groups. The ones that use the AVERAGE of the quarter are the ones who want to continue to use Method 9, but less frequently. The TWO consecutive months are for facilities that want to return to Method 22.

Q4: For abrasive blasting of objects greater than 8 feet performed inside a blast booth that is vented through a control device...there is no mention of required visual emissions observations in 40 CFR 63.11516(a)(2), but observations are required in 40 CFR 63.11516(a)(3). Are companies subject to 40 CFR 63.11516(a)(3) when blasting objects over 8 feet? If all blasting occurs in a vented enclosed booth with a control device, would the facility only be subject to the requirements in 40 CFR 63.11516(a)(2)?

A: Requirements for blasting objects over 8 feet (ft) in any one dimension covers only large objects blasted without a control device for capturing emissions. If a control device is used to capture vented particulate:

- There is no size limit, so objects over 8 ft. could be blasted, and
- No visual emissions observation would be required.

The lack of a control device is the key factor, not the size of the object.

SECTION 12

Reporting and Recordkeeping

Q1: Under notification of compliance status requirements, 40 CFR 63.11519(a)(2)(iii) states, "If you operate any spray painting affected sources [submit] the information required by 40 CFR 63.11516(e)(3)(vi)(C), "Compliance demonstration," or 40 CFR 63.11516(e)(4)(ix)(C), "Compliance demonstration" as applicable;"..., with the noted problem being 40 CFR 63.11516(e) is "reserved." Why is this reserved?

A: 40 CFR 63.11516(e) was used for VOC standards that were in the proposal but were removed from the final rule at the very end of the rule review process. You can ignore any reference to this section anywhere in the rule. If an amendment is ever done for this rule, EPA will correct this error.

Q2: In 40 CFR 63.11519(b)(1), EPA addresses annual certification and compliance reports. In 40 CFR 63.11519(b)(2)(ii), EPA states: "Each subsequent annual certification and compliance report must cover the subsequent <u>semiannual</u> reporting period from January 1 through December 31". Should "semiannual" be annual?

A: Yes

Q3a: In 40 CFR 63.11519(b)(2)(iii) EPA basically states: Each annual certification and compliance report must be prepared and submitted no later than January 31 and kept in a readily accessible location for inspector review. If an exceedence has occurred during the year, then the record of that exceedence must be submitted with the annual certification and compliance report. Is the intent of this requirement for facilities to submit an annual report each January which includes any forms that record a visual emissions observation using Method 22 or any visual emissions forms that document an exceedence of a Method 9 observation?

A: Yes

A3b: If the facility had no visible emissions as per Method 22, do they need to submit a statement to that effect?

A: Yes

Q3c: Would the facility need to submit a statement informing DEQ that visual emissions were observed as per Method 22 or an exceedence as observed per Method 9?

A: A statement would not be required if the facility documents visual emissions or an opacity exceedence, because they are already required to submit the readings documenting the exceedences, any corrective actions taken, and records of follow-up observations.

Q4: In 40 CFR 63.11516, under "Standards for Welding", (f)(1) reads as follows: "(1) You must operate all equipment, capture, and control devices associated with welding operations according to manufacturer's instructions. You must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the capture and control devices, as specified by the requirements in 40 CFR 63.11519(c)(4), "Notification, recordkeeping, and reporting requirements." As stated, the compliance demonstration for this is that the source keep manufacturers' records only of the capture and control devices and not for the welding equipment; however, 40 CFR 63.11516(f)(2) indicates that use of control devices are optional if other management practices in (f)(2) are followed. Therefore, it seems as if a source cannot demonstrate compliance with (f)(1) unless capture and control are used. Shouldn't the compliance demonstration for (f)(1) include keeping records of the manufacturers' instructions for the welding equipment too, or maybe even records of any of the management practices selected and used, as required by (f)(2)?

A: There are requirements throughout the rule regarding the operation of equipment according to manufacturer's specifications and instructions, and that these documents must be kept on site. Implicit in the rule language above is the requirement for all equipment, to include capture and control devices, to be operated accordingly. If equipment is operated other than for its intended purpose, or in a way that is not specified by the manufacturer, then that piece of equipment, or a process would be considered out of compliance with the rule. Records of instructions can be just the instructions themselves. Records of management practices would support the annual report and should be submitted with the at least the first annual report, unless changes to these management practices occur within the reporting year.

Q5: 40 CFR 63.11519(b), reads as follows: "(b) What reports must I prepare or submit? (1) Annual certification and compliance reports. You must prepare and submit annual certification and compliance reports for each affected source according to the requirements of paragraphs (b)(2) through (7) of this section." Should this be (b)(2) through (9)?

A: Yes. This is a typographical error.

Q6: 40 CFR 63.11519(b)(4), reads as follows: "(4) General requirements. The annual certification and compliance report must contain the information specified in paragraphs (b)(4)(i) through (iii) of this section, and the information specified in paragraphs (b)(5) through (7) of this section that is applicable to each affected source." Should this be (b)(2) through (9)?

A: Yes. This is a typographical error.

Q7: 40 CFR 63.11519(c)(1), reads as follows: "What records must I keep? You must collect and keep records of the data and information specified in paragraphs (c)(1) through (13) of this section, according to the requirements in paragraph (c)(14) of this section". Shouldn't the records specified in paragraphs (c)(1) through (14) be according to the requirements in paragraph (c)(15)?

A: Yes. This is a typographical error.

Q8: 40 CFR 63.11519(c)(15), reads as follows: "(15) Your records must be maintained according to the requirements in paragraphs (c)(14)(i) through (iii) of this section." Should this be (c)(15)(i) through (iii) instead?

A: Yes. This is a typographical error.

Q9: How long should I keep records?

A. As per 40 CFR 63.10: General recordkeeping requirements. (1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part, and recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be kept on site. The remaining 3 years of data may be kept off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

Q10: What, if any, reports will ever need to be sent to any agency?

A: DEQ requires that the annual report be submitted by January 31st of every year. The annual report is a facility's notification of continued compliance with the rule. If any documented Method 22 visual emissions observations were made or any Method 9 exceedences have been documented throughout the year, these reports and all follow-up actions must also be submitted with the annual report. DEQ has the authority to request other reports or documents as necessary to determine compliance with the 6X rule.

SECTION 13

Implementation

Q1: Will this rule require the opening of existing facility air permits?

A: It depends. If a facility is currently on an Air Quality permit, the new requirements are added to the existing permit, either as part of the permit renewal process, or as a permit attachment. If a facility is not currently on a permit, then they are assigned to the Metal Fabrication General Permit.

Note: The permit language should always be checked to see what it says regarding the amendment of the permit if and when a facility becomes subject to a new rule.

Q3: Has DEQ prepared a list of sources in the Metal Fabrication and Finishing source categories for implementation purposes?

A: DEQ has prepared a source list for each applicable area source rule DEQ has adopted. The list of metal fabrication and finishing facilities was prepared using the list of Standard Industrial Classification codes found in the final rule text. Any facility whose primary SIC code, after verification, is not listed in the table in Section 2, is not affected by the 6X rule. EPA expected over 8,000 facilities nationwide to be affected by the 6X rule.

Q4: 40 CFR 63.11517(b)(2) states that if no visible fugitive emissions are detected using Method 22 over 10 consecutive operating days that the frequency of observations can be decrease to once every five days of operation of the process (one calendar week). This schedule is confusing for a facility to follow when they operate on a seven day work week. Is it permissible to follow a normal weekly observation schedule in this case?

A: Yes, if a facility is open 6 or 7 days a week then they should follow "weekly" as defined for their facility and not every five days. The schedules mentioned in this section (63.11517) for both Method 22 and Method 9 assumed a 5 day work week. The subsections that outline the weekly, monthly and quarterly observation schedule also maintain this assumption. Obviously, when a facility operates on a longer work week, the provisions in these sections of the rule are slightly different. Therefore, you should follow the weekly, monthly and quarterly schedules that make sense for your facility's situation, and use the standard definitions of week, calendar month, and quarter year (three months).

Q5: Section 63.11517(d)(4) having to do with quarterly visible emissions testing using Method 9 states that you may decrease the frequency of EPA Method 9 testing to once per every 120 days of operation of the process. Is this a typographical error?

A: Yes, 120 days was incorrect and to be consistent with a 5 day work week assumption the testing frequency would be every 90 days for quarterly observations. However, as stated above in answer to Question 4, you should follow the weekly, monthly and quarterly schedules that make sense for your situation. The quarterly testing frequency could be reduced to once every calendar quarter.