DEQ Art Glass Permanent Rule
Fiscal Impact Estimate for proposed rule- Tier 2 CAGM

Tier 2 (Bullseye and Uroboros)		
Requirements summary	Install control device on all furnaces using metal HAPs If using chrome: Source test & modeling to develop daily & annual max usage Then follow the max usage limits	
	Cost Estimate	
	low	**high**

Permitting costs

NESHAP 6S applies?	Y		
Needs Title V permit because of 6S?	Y		
Cost of Title V application (including DEQ fees + consultant to prepare	$25,000	$100,000	If a facility needs a Title V due to NESHAP 6S, that is independent of this art glass rule, so this cost isn't included in the totals.
Incremental extra cost of Title V application due to art glass rule	$0	$5,000	
Annual DEQ Title V permit costs	$10,310	$11,510	If a facility needs a Title V due to NESHAP 6S, that is independent of this art glass rule, so this cost isn't included in the totals.

Control Device Costs

install baghouse	$250,000	$300,000	Assume install of 1 additional baghouse, above what would have been installed due to NESHAP 6S.
annual operation	$15,000	$70,000	electricity, bag replacement etc

Reporting Costs

Annual cost to monitor and report on baghouse to DEQ	$12,000	$12,000	

Source Testing Costs

One-time source test to measure Cr6 emissions when making products containing Cr3 or Cr6	$60,000	$65,000	Assume this requires 16 hr runs. At some facilities, may be able to run concurrently with 99% control efficiency test, reducing cost.	$10-15k if test can be done in 1-3 hr runs. If 16hr runs, $65k. If 4-day runs, $100k.
One-time source test to demonstrate 99% PM control efficiency	$4,000	$15,000	Assume length of run depends on detection limits, does not have to be entire production run to show capture efficiency.	

Modeling Costs

One-time modeling to find max production rate that results in acceptable source impact level		
AERSCREEN model only	$10,000	-
AERSCREEN followed by AERMOD model	-	$30,000

Total Costs

one-time costs	$324,000	$415,000
annual costs	$27,000	$82,000

DEQ Art Glass Permanent Rule
Fiscal Impact Estimate for proposed rule- Tier 1 CAGM

Tier 1 (Northstar, Trautman and Glass Alchemy)							
Requirements summary	Do 1 of these at all furnaces: Install control device Source test & modeling to show impact below limits Request permit condition to not use metal HAPs						
	Cost Estimate						
	If doing source test and modeling only		**If installing control device**		**If taking permit condition to stop using metal HAPs**		
	low	high	low	high	low	high	
Permitting costs							
NESHAP 6S applies?	N		N		N		
Rule would require facility to get new permit	Yes, ACDP		Yes, ACDP		Yes, ACDP		
Application Fee	$ 7,200	$ 7,200	$ 7,200	$ 7,200	$ 7,200	$ 7,200	
Consultant to prepare application	-	-	-	-	-	-	
Annual Permit Fee (applies at time of application and each year after)	$ 4,608	$ 4,608	$ 4,608	$ 4,608	$ 4,608	$ 4,608	
Control Device Costs							
install baghouse	-	-	$250,000	$300,000	-	-	
annual operation	-	-	$15,000	$70,000	-	-	electricity, bag replacement etc
Reporting Costs							
Annual cost to monitor and report on baghouse to DEQ	-	-	$12,000	$12,000	-	-	
Source Testing Costs							
One-time source test to measure metal emissions including total Cr. (Total Cr can be used as a proxy for Cr6)	$15,000	$25,000					
One-time source test to measure Cr6 emissions when making products containing Cr3 (optional)	$0	$65,000	If Tier 1 and using control device, don't have to test for Cr6.		-	-	test length depends on detection limits
One-time source test to demonstrate 99% PM control efficiency	-	-	$4,000	$15,000	-	-	
Modeling Costs							
One-time modeling to find max production rate that results in acceptable source impact level							
AERSCREEN model only	$10,000	-	-	-	-	-	
AERSCREEN followed by AERMOD model	-	$30,000	-	-	-	-	
Cost of reduced production							
stopping production of materials containing Cr6 (required to take source test + modeling exemption)	unknown	unknown	-	-	About 1/2 of products contain metal HAPs. There may not be workable substitute formulations. Facilities may choose to phase out one or a few metal HAPs but are likely to choose source test & modeling or installation of a control device.		
reduced production if source testing shows it's needed to meet receptor conc limits	unknown	unknown	-	-			
Total Costs							
one-time costs	$17,200	$102,200	$261,200	$322,200	$7,200	$7,200	
annual costs	$4,608	$4,608	$31,608	$86,608	50% of facility profit (?)		