From:	WESTERSUND Joe
To:	INAHARA Jill; HNIDEY Emil; artglass2016
Cc:	FELDON Leah
Subject:	discuss art glass rule draft fiscal impact calcs
Start:	Monday, May 16, 2016 1:00:00 PM
End:	Monday, May 16, 2016 2:00:00 PM
Location:	HQ - Conference Room 7

Hi Jill and Emil,

I have draft fiscal impact calculations for the art glass rule that I'd like your feedback on. I am guessing that I still have a long way to go, but am hoping you can point me in the right direction.

It'll be easier to explain in person than by email. Will this time work for you? Are there others I should invite?

Some questions I'd like your help to answer:
* Did I understand the rule requirements correctly?
* Do my approach and draft numbers sound reasonable?
* Did I include and exclude the right things in my calculations?
* Are other data / calculations needed?

My goal is to send the draft fiscal impact calcs to the advisory committee next Friday 5/20. I haven't drafted the staff report yet but will start on that on Monday.

Leah, your calendar looks full but let me know if you'd like to be there for this, or to be briefed at another time.

-Joe

-- Some summary info below. You can skim through now or wait until the meeting for an introduction. –

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 $100,000 $100,000 this number isn't attributable to the art glass rule, so don't include in totals.
Extra cost of Title V application due to art glass rule $0 $20,000

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 $14,000 $16,000

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 $10,000 $25,000 $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% control efficiency $65,000 $65,000

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

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 $ 14,400 $ 14,400 $ 14,400 $ 14,400 $ 14,400
$ 14,400
Consultant to prepare application - - - - - -
Annual Permit Fee (applies at time of application and each year after) $ 9,216 $ 9,216 $ 9,216
$ 9,216 $ 9,216 $ 9,216

Control Device Costs
install baghouse - - $250,000 $300,000 - -
annual operation - - $14,000 $16,000 - -

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 $10,000 $25,000 If Tier 1 and using control device, don't have to test for Cr6. - -
One-time source test to demonstrate 99% control efficiency - - $65,000 $65,000 - -

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) ? ? - - 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 ? ? - -

Total Costs
one-time costs $34,400 $69,400 $329,400 $379,400 $14,400 $14,400
annual costs $9,216 $9,216 $35,216 $37,216 50% of facility profit

Fiscal Impact Estimate (combining the above details)

Company Bullseye Glass Uroboros Glass Northstar Glassworks Trautman Art Glass Glass Alchemy total
Tier Tier 2 Tier 2 Tier 1 Tier 1 Tier 1
One-time costs
low estimate $335,000 $335,000 $34,400 $34,400 $34,400 $773,200
high estimate $440,000 $440,000 $379,400 $379,400 $379,400 $2,018,200

Annual costs
low estimate $26,000 $26,000 $9,216 $9,216 $9,216 $79,648
high estimate $28,000 $28,000 $37,216 $37,216 $37,216 $167,648

Unique considerations for this facility may move factory if current landlord doesn't allow construction of baghouse. They estimate that would cost $2M plus $1M in lost revenue.

Small Business Status
# of employees 120 30 20 ? ?
Is a small business? N Y Y Y Y