

NESHAP for Source Categories: Generic Maximum Achievable Control Technology Standards fo

Burden Item	(A) Person-hours per occurrence ^a	(B) No. of occurrences per source per year ^b
1. Applications	N/A	
2. Survey and Studies	N/A	
3. Reporting Requirements		
A. Familiarize with Rule Requirements ^e	See 4A	
B. Required Activities for PC, AMF, AR, HF ^e	See 4C	
C. Create Information for PC, AMF, AR, HF ^e	See 4C	
D. Gather Information for PC, AMF, AR, HF ^e	See 4C	
E. Write report		
Initial notification requirements for pressure relief devices		
Polycarbonates (PC)	4	1
Acrylic and Modacrylic Fibers (AMF)	4	1
General initial notification requirements ^{e, f}		
Polycarbonates (PC)	52	1
Acrylic and Modacrylic Fibers (AMF)	52	1
Acetal Resins (AR)	52	1
Hydrogen Fluoride (HF)	52	1
Startup, shutdown and malfunction reports ^g		
Polycarbonates (PC)	N/A	
Acrylic and Modacrylic Fibers (AMF)	N/A	
Acetal Resins (AR)	2	1
Hydrogen Fluoride (HF)	2	1
Periodic reports ^h		
Polycarbonates (PC)	13.5	2
Acrylic and Modacrylic Fibers (AMF)	15.5	2
Acetal Resins (AR)	8	2
Hydrogen Fluoride (HF)	8	2
Leak detection and repair reporting ⁱ		
Polycarbonates (PC)	12	2
Acrylic and Modacrylic Fibers (AMF)	12	2
Acetal Resins (AR)	8	2
Hydrogen Fluoride (HF)	8	2
REPORTING SUBTOTAL (Rounded)		
4. Recordkeeping Requirements		
A. Familiarize with Rule Requirements		
Polycarbonates (PC)	4	1
Acrylic and Modacrylic Fibers (AMF)	4	1

Acetal Resins (AR)	4	1
Hydrogen Fluoride (HF)	4	1
B. Plan activities		
Polycarbonates (PC)	40	1
Acrylic and Modacrylic Fibers (AMF)	40	1
Acetal Resins (AR) ^e	40	1
Hydrogen Fluoride (HF) ^e	40	1
C. Implementation activities		
Material determinations ^e	N/A	
Control equipment inspections		
a. Tanks		
Polycarbonates (PC)	N/A	
Acrylic and Modacrylic Fibers (AMF)	2	12
Acetal Resins (AR)	2	12
Hydrogen Fluoride (HF)	N/A	
b. Closed-vent systems		
Polycarbonates (PC)	2	2
Acrylic and Modacrylic Fibers (AMF)	2	2
Acetal Resins (AR)	2	2
Hydrogen Fluoride (HF)	2	2
Control equipment leak monitoring		
a. Cover vented to control device		
Polycarbonates (PC)	1	2
Acrylic and Modacrylic Fibers (AMF)	1	2
Acetal Resins (AR)	1	2
Hydrogen Fluoride (HF)	1	2
a. Closed vent system		
Polycarbonates (PC)	1	2
Acrylic and Modacrylic Fibers (AMF)	1	2
Acetal Resins (AR)	1	2
Hydrogen Fluoride (HF)	1	2
Control devices		
a. Initial requirements design analysis, performance test		
Polycarbonates (PC) ^e	80	1
Acrylic and Modacrylic Fibers (AMF)	80	1
Acetal Resins (AR) ^e	80	1
Hydrogen Fluoride (HF) ^e	80	1
b. Operate and maintain CMS		
Polycarbonates (PC)	8	12
Acrylic and Modacrylic Fibers (AMF)	8	12
Acetal Resins (AR)	8	12
Hydrogen Fluoride (HF)	8	12
Pressure relief devices		
Polycarbonates (PC)	2	1
Acrylic and Modacrylic Fibers (AMF)	2	1

Leak detection and repair program		
a. Initial requirements: Identify all affected streams		
Polycarbonates (PC)	2	1
Acrylic and Modacrylic Fibers (AMF)	2	1
General Burden ^e		
Polycarbonates (PC)	20	1
Acrylic and Modacrylic Fibers (AMF)	20	1
Acetal Resins (AR)	20	1
Hydrogen Fluoride (HF)	20	1
b. Perform monitoring/repairs		
Polycarbonates (PC) ⁱ		
Acrylic and Modacrylic Fibers (AMF) ^j		
Acetal Resins (AR)	16	12
Hydrogen Fluoride (HF) ^k	0.1	1092
Container vapor tightness certification	N/A	
D. Develop Record System		
Develop startup, shutdown, malfunction plan ^{e, g}		
Polycarbonates (PC)	N/A	
Acrylic and Modacrylic Fibers (AMF)	N/A	
Acetal Resins (AR)	20	1
Hydrogen Fluoride (HF)	20	1
Control equipment		
General Burden ^e		
Polycarbonates (PC)	16	1
Acrylic and Modacrylic Fibers (AMF)	16	1
Spinning Lines (AMF)	2	1
Acetal Resins (AR)	16	1
Hydrogen Fluoride (HF)	16	1
Pressure relief devices ^e		
Polycarbonates (PC)	2	1
Acrylic and Modacrylic Fibers (AMF)	2	1
Leak detection and repair program ^e		
Polycarbonates (PC)	44	1
Acrylic and Modacrylic Fibers (AMF)	44	1
Acetal Resins (AR)	40	1
Hydrogen Fluoride (HF)	40	1
E. Record All Information Required by Standards		
Initial requirements ^e		
Polycarbonates (PC)	17	1
Acrylic and Modacrylic Fibers (AMF)	17	1
Acetal Resins (AR)	17	1
Hydrogen Fluoride (HF)	17	1
Control equipment inspections		
Polycarbonates (PC)	1	2
Acrylic and Modacrylic Fibers (AMF)	1	2

Acetal Resins (AR)	1	2
Hydrogen Fluoride (HF)	1	2
Control equipment monitoring ^l		
Polycarbonates (PC)	1	52
Acrylic and Modacrylic Fibers (AMF)	1	52
Acetal Resins (AR)	1	52
Hydrogen Fluoride (HF)	1	52
Control device CMS		
Polycarbonates (PC)	1	12
Acrylic and Modacrylic Fibers (AMF)	1	12
Acetal Resins (AR)	1	12
Hydrogen Fluoride (HF)	1	12
Pressure relief devices		
Polycarbonates (PC)	2	1
Acrylic and Modacrylic Fibers (AMF)	2	1
Leak detection and repair program		
Polycarbonates (PC)	20	1
Acrylic and Modacrylic Fibers (AMF)	20	1
Acetal Resins (AR)	16	1
Hydrogen Fluoride (HF)	16	1
F. Time to Train Personnel		
Material determination methods	N/A	
Control equipment inspection and monitoring ^m		
Polycarbonates (PC)	8	1
Acrylic and Modacrylic Fibers (AMF)	8	1
Acetal Resins (AR)	8	1
Hydrogen Fluoride (HF)	8	1
Leak detection and repair program ^{h,m}		
Polycarbonates (PC)	10	1
Acrylic and Modacrylic Fibers (AMF)	10	1
Acetal Resins (AR)	2	1
Hydrogen Fluoride (HF)	2	1
Container leak tight method	N/A	
RECORDKEEPING SUBTOTAL		
TOTAL LABOR BURDEN AND COST (Rounded)ⁿ		
TOTAL CAPITAL AND O&M COST (Rounded)ⁿ		
GRAND TOTAL (Rounded)ⁿ		

Assumptions:

N/A = Not Applicable.

^a Estimate of burden for each activity, technical hours only.

^b Estimate based on average facilities.

^c We have assumed that there are 7 existing sources (3 PC, 1 AMF, 2 AR, and 1 HF) and that no additional new sources will become subject to regulation.

^d Costs are rounded and based on the following hourly rates: Technical at \$112.98, Management at \$149.35, and Clerical at \$54.81. These rates are based on the "2014 Chemical Industry Survey" and industry group".

^e Since there are no new respondents estimated, these requirements do not apply.

^f Initial notification requirements include: initial notifications, initial compliance determination, and initial performance tests.

^g All major sources except for those in the PC and AMF subcategories must submit startup, shutdown, malfunction reports semiannually and information with the periodic reports.

^h The rules requires that all sources submit periodic reports (semiannually or according to the schedule for Title V).

ⁱ The standards for equipment leak requires the submittal of an initial report and semiannual reports of leak detection and repair (LDAR) and required periodic LDAR information with the semiannual reports. Since there are no new respondents estimated, the requirements for a

^j Costs for performing monitoring and repairs for the polycarbonates (PC) and acrylic and modacrylic fibers (AMF) categories are accounted

^k Visual inspections are required once per shift with a total of three shifts per day, at seven days per week, for 52 weeks per year. (3x7x52

^l We have assumed that control equipment monitoring should be done on a weekly basis.

^m We have assumed that there will be some labor hours associated with rule analysis and training per year.

ⁿ Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

or Acetal Resin; Acrylic and Modacrylic Fiber; Hydrogen Fluoride and Polycarbonate Producti

112.98

149.35

54.81

(C) Person-hours per source per year (C=AxB)	(D) Respondents per year ^c	(E) Technical person- hours per year (E=CxD)	(F) Management person- hours per year (Ex0.05)	(G) Clerical person-hours per year (Ex0.1)
4	0	0	0	0
4	0	0	0	0
52	0	0	0	0
52	0	0	0	0
52	0	0	0	0
52	0	0	0	0
2	2	4	0.2	0.4
2	1	2	0.1	0.2
27	3	108	5.4	10.8
31	1	31	1.55	3.1
16	2	32	1.6	3.2
16	1	16	0.8	1.6
24	3	72	3.6	7.2
24	1	24	1.2	2.4
16	2	32	1.6	3.2
16	1	16	0.8	1.6
			388	
4	3	12	0.6	1.2
4	1	4	0.2	0.4

4	2	8	0.4	0.8
4	1	4	0.2	0.4
40	3	120	6	12
40	1	40	2	4
40	0	0	0	0
40	0	0	0	0
24	1	24	1.2	2.4
24	2	48	2.4	4.8
4	3	12	0.6	1.2
4	1	4	0.2	0.4
4	2	8	0.4	0.8
4	1	4	0.2	0.4
2	3	6	0.3	0.6
2	1	2	0.1	0.2
2	2	4	0.2	0.4
2	1	2	0.1	0.2
2	3	6	0.3	0.6
2	1	2	0.1	0.2
2	2	4	0.2	0.4
2	1	2	0.1	0.2
80	0	0	0	0
80	0	0	0	0
80	0	0	0	0
80	0	0	0	0
96	3	288	14.4	28.8
96	1	96	4.8	9.6
96	2	192	9.6	19.2
96	1	96	4.8	9.6
2	3	6	0.3	0.6
2	1	2	0.1	0.2

2	0	0	0	0
2	0	0	0	0
20	0	0	0	0
20	0	0	0	0
20	0	0	0	0
20	0	0	0	0
192	2	384	19.2	38.4
109.2	1	109.2	5.46	10.92
20	0	0	0	0
20	0	0	0	0
16	0	0	0	0
16	0	0	0	0
2	0	0	0	0
16	0	0	0	0
16	0	0	0	0
2	0	0	0	0
2	0	0	0	0
44	0	0	0	0
44	0	0	0	0
40	0	0	0	0
40	0	0	0	0
17	0	0	0	0
17	0	0	0	0
17	0	0	0	0
17	0	0	0	0
2	3	6	0.3	0.6
2	1	2	0.1	0.2

2	2	4	0.2	0.4
2	1	2	0.1	0.2
52	3	156	7.8	15.6
52	1	52	2.6	5.2
52	2	104	5.2	10.4
52	1	52	2.6	5.2
12	3	36	1.8	3.6
12	1	12	0.6	1.2
12	2	24	1.2	2.4
12	1	12	0.6	1.2
2	3	6	0.3	0.6
2	1	2	0.1	0.2
20	3	60	3	6
20	1	20	1	2
16	2	32	1.6	3.2
16	1	16	0.8	1.6
8	3	24	1.2	2.4
8	1	8	0.4	0.8
8	2	16	0.8	1.6
8	1	8	0.4	0.8
10	3	30	1.5	3
10	1	10	0.5	1
2	2	4	0.2	0.4
2	1	2	0.1	0.2
			2,518	
			2,910	

...t to the rule over the next three years.

...e labor rates are based on the June 2017 United States Department of Labor, Bureau of Labor Statistics, June 2017, "Table 2. Civilian"

when actions are taken in the event of a startup, shutdown, or malfunction that are consistent with the source's SSM plans. Sources

and any changes to the processes, monitoring frequency and initiation of a quality improvement program. These estimates assume that one-time initial report do not apply.

and for in operation and maintenance costs (i.e. the LDAR program is contracted out instead of conducted in house) (see section 6(b)(iii)) for a total of 1,092 inspections per year.

on (40 CFR Part 63, Subpart YY) (Renewal)

(H) Cost,\$ ^d
\$0
\$0
\$0
\$0
\$0
\$0
\$503.71
\$251.86
\$13,600.28
\$3,903.78
\$4,029.71
\$2,014.86
\$9,066.85
\$3,022.28
\$4,029.71
\$2,014.86
\$42,438
\$1,511.14
\$503.71

\$1,007.43
\$503.71
\$15,111.42
\$5,037.14
\$0
\$0
\$3,022.28
\$6,044.57
\$1,511.14
\$503.71
\$1,007.43
\$503.71
\$755.57
\$251.86
\$503.71
\$251.86
\$755.57
\$251.86
\$503.71
\$251.86
\$0
\$0
\$0
\$0
\$36,267.41
\$12,089.14
\$24,178.27
\$12,089.14
\$755.57
\$251.86

\$503.71
\$251.86
\$19,644.85
\$6,548.28
\$13,096.56
\$6,548.28
\$4,533.43
\$1,511.14
\$3,022.28
\$1,511.14
\$755.57
\$251.86
\$7,555.71
\$2,518.57
\$4,029.71
\$2,014.86
\$3,022.28
\$1,007.43
\$2,014.86
\$1,007.43
\$3,777.86
\$1,259.29
\$503.71
\$251.86
\$275,683
\$318,000
\$43,100
\$361,000

94 hr/response

Workers, by occupational

can submit this

sources are submitting the

i)).

Table 2: Average Annual EPA Burden and Cost – NESHAP for Source Categories: Generic Ma

Burden Item	(A) EPA person-hours per occurrence	(B) No. of occurrences per plant per year	(C) EPA person-hours per plant per year (C=AxB)
REPORT REVIEW			
1. Initial Requirements			
a. Initial notification ^c	2	1	2
b. Performance test ^{c, d}	2	1	2
c. Compliance status ^e	4	1	4
d. Performance test reports ^{c, d}	4	1	4
2. Periodic Requirements			
a. Periodic reports	3	2	6
b. Leak detection and repair reports ^{c, f}	3	2	6
c. Startup, shutdown, malfunction reports ^{c, g}	2	1	2
TOTAL (Rounded)^h			

Assumptions

^a We have assumed that there are 7 existing sources (3 PC, 1 AMF, 2 AR, and 1 HF) and that no additional new sources w

^b These rates are from the Office of Personnel Management (OPM), 2017 General Schedule, which excludes locality rates government employees.

^c We have assumed there will be no new sources over the next three years of this ICR. Since there are no new responder

^d We have assumed that the Agency will not have additional burden from sources conducting performance tests due to :

^e Since there are no new respondents estimated, these requirements do not apply.

^f The equipment leak standards require the submittal of an initial report and semiannual report of leak detection and rep a quality improvement program. We have assumed that sources are submitting the required LDAR information with the

^g All major sources except for those in the PC and AMF subcategories must submit startup, shutdown, malfunction repor consistent with the source's SSM plans. Since there are no new respondents estimated, the requirements to develop a s submitting their information on SSM with the periodic report which is submitted on a semiannual basis.

^h Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

Maximum Achievable Control Technology Standards for Acetal Resin; Acrylic and Modacrylic

	48.08	64.8	26.02	
(D) Plants per year ^a	(E) Technical person- hours per year (E=CxD)	(F) Management person-hours per year (Ex0.05)	(G) Clerical person- hours per year (Ex0.1)	(H) Agency Cost, \$ ^b
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
7	42	2.1	4.2	\$2,264.72
7	42	2.1	4.2	\$2,264.72
0	0	0	0	\$0
		97		\$4,530

will become subject to the rule over the next three years.

of pay. The rates have been increased by 60 percent to account for the benefit packages available to

are estimated, these requirements do not apply.

a process change that may or may not result in the source meeting additional requirements.

air (LDAR) program experiencing any changes to the processes, monitoring frequency and initiation of periodic reports.

ts semiannually when actions are taken in the event of a startup, shutdown, or malfunction that are startup, shutdown and malfunction (SSM) plan do not apply. These estimates assume that sources are

: Fiber; Hydrogen Fluoride and Polycarbonate Production (40 CFR Part 63, Subpart YY) (Ren

iewal)

Capital/Startup and Operation and Maintenance (O&M) Costs						
(A)	(B)	(C)	(D)	(E)	(F)	(G)
Source Category and Cost Type	Capital/Startup Cost for One Respondent	Number of Respondents	Total Capital/Startup Cost	Annual Costs for One Respondent	Number of Respondents	Total Annual Cost
			(B X C)			(E X F)
PC (O&M)	\$0	0	\$0	\$1,505	3	\$4,515
PC (PRD)	\$12,649	0	\$0	\$1,804	3	\$5,412
PC (LDAR)	\$3,899	0	\$0	\$541	3	\$1,623
AMF (O&M)	\$0	0	\$0	\$1,505	1	\$1,505
AMF (PRD)	\$37,063	0	\$0	\$5,277	1	\$5,277
AMF (LDAR)	\$1,428	0	\$0	\$223	1	\$223
AR ^{1,2}	\$0	0	\$0	\$174	2	\$347
				\$7,500	2	\$15,000
HF ^{1,3}	\$0	0	\$0	\$174	1	\$174
				\$9,038	1	\$9,038
Total (rounded)						\$43,100

135.45

38.15

173.6

9038.4