

**Prevention of Significant Deterioration and Nonattainment New Source Review  
(40 CFR Part 51 and 52)**

**EPA ICR Number 1230.28, OMB Control Number 2060-0003**

**Change Worksheet Justification**

**Introduction**

The analysis in this document was performed to support changes in the New Source Review (NSR) Program Information Collection Request (ICR), OMB Tracking number 2060-0003. This update is assigned EPA tracking number ICR #1230.28. The NSR Program ICR was last renewed in October 2008, and expires in April 2012. In the interim, the following changes are underway.

The EPA is proceeding with the implementation of the *Flexible Air Permitting Rule*, and these changes are addressed in a separate ICR completed in November 2008.<sup>1</sup> This rule promotes the use of flexible air permits (FAPs), which is a permit designed to facilitate flexible market-responsive operations at an industrial facility while ensuring equal or greater environmental protection than conventional air permits. Through this action, the Agency anticipates cost savings to subject sources to be approximately \$18.1 million annually, while permitting authorities should experience \$11.2 million annual cost savings. The Agency is estimated to expend over \$31,000 additional cost during the same time frame.

The *Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule* ("Tailoring Rule") was finalized in May 2010. In addition, the supporting *Action To Ensure Authority To Issue Permits Under the Prevention of Significant Deterioration Program to Sources of Greenhouse Gas (GHG) Emissions: Finding of Substantial Inadequacy and SIP Call* was proposed in September 2010. The affect of including GHGs in NSR permitting programs is reflected in the corresponding changes. These

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<sup>1</sup> Information Collection Request For Changes To The Part 70 Operating Permit Regulations, The Part 71 Operating Permit Regulations, and The Parts 51 and 52 Prevention of Significant Deterioration and Non-Attainment New Source Review Regulations for Flexible Air Permits, November 2008.

adjustments made to the NSR burden are explained in further detail in this change worksheet.

## **The Tailoring Rule**

This final rule “tailors” the requirements of the Clean Air Act (CAA) permitting programs to limit which facilities will be required to obtain prevention of significant deterioration (PSD) permits. The rule establishes a schedule that will initially focus PSD programs on the largest sources with the most permitting experience, then expanding to cover the largest sources of greenhouse gases (GHGs) that may not have been previously covered by the CAA for other pollutants. Step 1, occurring from January 2011 through June 2011, affects only sources currently subject to the PSD permitting program (i.e., “anyway” sources) conducting projects expected to increase GHG emissions by 75,000 tons per year (tpy) or more of total GHG on a CO<sub>2</sub>e basis. During this time, no sources would be subject to PSD requirements due solely to GHG emissions.

Building on Step 1, Step 2 is in effect from July 2011 through June 2013. During this time, PSD permitting requirements will cover for the first time new construction projects with GHG emissions of at least 100,000 tpy even if they do not exceed the permitting thresholds for any other pollutant. Modifications at existing facilities with GHG emissions in excess of 100,000 tpy CO<sub>2</sub>e and that increase GHG emissions by at least 75,000 tpy will be subject to permitting requirements, even if they do not significantly increase emissions of any other pollutant. EPA estimates there will be approximately 900 additional PSD permitting actions each year triggered under this step by increases in GHG emissions from new and modified emissions sources.

**Action to Ensure Authority to Issue Permits under the Prevention of Significant Deterioration Program to Sources of Greenhouse Gas Emissions: Finding of Substantial Inadequacy and SIP Call (“SIP Fix Implementation Rule”)**

EPA finds that PSD permitting regulations in some state plans do not meet CAA requirements because their programs currently do not cover GHG emissions. For any state that cannot make the necessary changes to its permitting program by January 2011, EPA has proposed to fill the gap through two actions. First, EPA is issuing a “SIP Call” which would require these states to revise their SIPs to ensure their PSD programs cover GHGs. Fourteen states are subject to the proposed SIP Call. The EPA will work closely with the states to help them develop and submit necessary SIP revisions to enable them to issue PSD permits to GHG-emitting sources. The second action proposes a federal implementation plan (FIP) that would apply in any state that is unable to submit a SIP revision in time. The FIP will enable the EPA to issue permits for GHG sources until states develop the necessary SIP revisions or accept delegation of the FIP.

## **Changes**

Information obtained for this assessment of estimated resource requirements came from the burden analysis for the Tailoring Rule.<sup>2</sup> For this rule, the EPA determined the approximate number of affected sources and the different burdens associated with each permitting action involving GHGs. Before the current ICR expires, permitting authorities will undergo six months of Step 1 and 18 months of Step 2.

The August 2008 ICR for the New Source Review (NSR) program estimates that 282 PSD and 519 non-attainment NSR permits are issued annually.<sup>3</sup> If a source is major for a pollutant for which an area is designated non-attainment, all significant emissions or significant emissions increases of pollutants for which the area is in attainment are also subject to PSD review, as long as the source is also major for PSD, meaning some of the facilities applying for nonattainment permits may also undergo PSD actions at the same time. Although there is no way of accurately predicting which

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<sup>2</sup> Summary of Methodology and Data Used to Estimate Burden Relief and Evaluate Resource Requirements at Alternative Greenhouse Gas (GHG) Permitting Thresholds. Prepared by EPA Staff; March 2010.

<sup>3</sup> Prevention of Significant Deterioration and Non-Attainment Area New Source Review (Renewal), EPA ICR Number 123.23, OMB Control Number 2060-0003, 2008. A copy of this document is available in the docket for the final Tailoring Rule.

of the 519 nonattainment actions might also coincide with a PSD action related to GHG emissions, it is likely that most will since they typically involve large emission sources; thus, it is assumed all nonattainment actions from the ICR annual estimate will also need a PSD permit for GHG. Therefore, all 801 permitting actions are assumed to involve a PSD action for GHG. Seventy percent of these permit actions are modifications, or 560 of the 801; further, 80% of these modifications are expected to involve combustion activities exceeding GHG emission levels and requiring the inclusion of GHG related requirements in a PSD permit.<sup>4</sup> This equates to 448 modifications annually, and it is believed that any of the modifications that would be subject to PSD due to the conventional emissions would also be large enough to increase GHGs by at least 75,000 tpy of CO<sub>2</sub>e.

The 240 remaining annual permit actions are assumed to be construction of new major sources as determined by emissions of one or more NAAQS pollutants. Due to the size and emissions of sources currently subject to the PSD permitting program, it is believed all of these newly constructed major sources will exceed the GHG threshold and will also need to include GHG-related requirements in the PSD permit. In total, all 688 major permitting actions mentioned above will need to factor in GHG requirements.

### Permitting Authorities

Based on the Tailoring Rule burden analysis, this update distinguishes between industrial and commercial/residential permits, noting differences in the associated burdens. An industrial permit due solely to GHGs will require the same amount of time to process and issue as a conventional pollutant, or 301 hours, as shown in Table 1. New commercial/residential permits will require only 70% of that time, or 210 hours.

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<sup>4</sup> The 80% estimate was obtained by reviewing a sample of PSD modification permits to determine the number involving combustion that would emit GHGs. This review showed that approximately 80% of PSD permitting actions involve combustion units of all types. These permitting actions are being permitted for, or taking limits for, NO<sub>x</sub> or some other combustion-related emission. These run the gamut of industrial activity, from power generators to manufacturing facilities, and many other types.

Table 2 identifies the average burden by activity for the Permitting Authorities. Estimates are greater than the previous ICR primarily due to the increase in affected source numbers. Over the next two years around 1,380 additional sources are expected to undergo PSD permit applications due to GHGs. Note that six will be commercial or residential sources. For most anyway sources requiring a permit due to conventional pollutants, a permitting authority will spend an estimated 50 additional hours to account for any applicable requirements associated with GHGs.<sup>5</sup>

No changes are noted for Part D at this time. While minor NSR programs may experience a change in burden hours, no data is currently available to reflect the cost and hourly impact. Some modification actions may no longer be able to net out or take limits for synthetic minor permits, thus requiring a major PSD permit. This may lower the number of minor permit actions. However, sources new to minor NSR due to GHGs may also need to obtain permits for the first time. Therefore, the average annual number of minor NSR permit actions currently remains the same.

Finally, in order to implement the Tailoring Rule some permitting authorities will need to revise their SIP to allow permitting of GHGs, which will increase the burden for major NSR programs. Because these changes are small and the State requirements for SIP development differ from State to State, the EPA assumed it would take no more than 40 hours for each reviewing authority to fully incorporate this rulemaking into its plan. This assumption includes legislative review, public comment, and all legal and legislative processes necessary for all of the above components. This is a one-time burden that will occur during the first year covered by this ICR.

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<sup>5</sup> A well-known gas with a familiar BACT process, such as NO<sub>x</sub>, requires an average of 20-30 burden hours to be included in a permit. As less is known regarding GHGs and the BACT decision process, expert staff judgment set the burden for permitting authorities to add GHG to permits at 50 hours. This is because determining BACT entails review and analysis of the available control techniques. For a well-known pollutant, the experience of the permitting authority allows it to efficiently consider the various options and narrow them down promptly to the one that should be considered BACT. Because no BACT determinations have ever been made, permitting authorities will need to invest additional time into reviewing the available technologies and selecting which one should be considered the best for the particular source. In the absence of any previous experience selecting BACT for GHG sources, we estimate that twice as much time will be necessary as for conventional pollutants.

Based on these changes to NSR programs, the average annual cost to permitting authorities is approximately \$213 million.

### Sources

An industrial permit due solely to GHGs will require the same amount of time to process and issue as a conventional pollutant, or 866 hours, as shown in Table 3. New commercial/residential permits will require only 70% of that time, or 606 hours.

Source burden, shown in Table 4, is expected to increase throughout the remaining two years of this ICR. As noted for permitting authorities, six new commercial/residential sources are expected to require a PSD permit during this time, as well as approximately 1,370 industrial sources. Permits for most anyway sources entering the PSD program due to conventional pollutants will need to spend approximately 222 additional hours on the process to account for any applicable GHG requirements.

No change is expected for Part D or minor NSR during this two year period. Therefore, the total annual burden for sources is estimated to be \$378 million.

### Agency

The Tailoring Rule preparation did not focus on Agency burden impacts. However, due to the increase in activities triggering PSD, there will be more time spent processing permit applications. Updated burden estimates are represented in Table 5. The total annual effort is just under 35,000 hours at a cost near \$1.5 million.

### **Additional Burden Due to Recent Actions**

Tables 6 and 7 highlight the burden impacts occurring as a result of the most recent program actions. The additional burden for permitting authorities is estimated at near 484,000 hours for the two-year period, while sources will experience a combined approximate burden of 1.5 million hours.

This analysis uses the 112 reviewing authorities count used by other permitting ICRs and the appropriate source count for individual permit-related items. Permitting actions for the next two years are averaged to obtain the annual response rate increase. The resulting average of additional respondents for this ICR renewal is estimated to be as follows:

- 690 additional PSD permit applications prepared by sources.
- 688 source permits requiring the addition of a GHG component.
- 690 additional PSD permit applications processed by permitting authorities.
- 688 permits requiring the addition of a GHG component by permitting authorities.

Further, 14 permitting authorities will need to submit changes to existing SIP programs to enable the capability to permit GHGs. This SIP revision is a one-time burden that when averaged over the two years remaining of this ICR, equates to seven new responses annually.

Incorporating these burden revisions into the currently approved NSR program ICR leads to an overall increase of approximately 991,000 hours annually for respondents, bringing the overall burden to over 6.6 million hours. In addition, the total number of respondents will increase to an estimated 149,500 annually.

<b>Table 1. Average Permitting Authority Burden per GHG PSD Permit Type</b>		
<b>Activity</b>	<b>Burden Hours per Permit - Industrial</b>	<b>Burden Hours per Permit - Commercial/ Residential<sup>a</sup></b>
Attend Pre-application Meetings	36	27
Answer Respondent Questions	20	15
Log In and Review Data Submissions	16	12
Request Additional Information	8	6
Analyze for and Provide Confidentiality Protection	24	2
Prepare Completed Applications for Processing	38	29
File and Transmit Copies	8	6
Prepare Preliminary Determination	36	27
Prepare Notices for and Attend Public Hearings	40	30
Application Approval	48	36
Notification of Applicant of PA Determination	8	6
Submittal of Information on BACT/LAER to RBLC	19	14
<b>Total Burden Hours per Permit</b>	<b>301</b>	<b>210</b>
<p><sup>a</sup>In general, to process commercial/residential permits, permitting authorities will have to spend 75% of the amount of time they spend on industrial permits, except they will have to spend even less time on confidentiality due to the fact that most residential sources are not likely to be concerned about confidentiality. Although commercial/residential permits will be much simpler than industrial permits, a large part of the permitting costs are fixed costs. For example, organizing and holding a hearing for a much simpler permit, compared to a more complex permit, nevertheless takes almost as long because of the document preparation, travel, and organizational details.</p>		





<b>Table 3. Average Source Burden per GHG PSD Permit Type</b>		
<b>Activity</b>	<b>Burden Hours per Permit - Industrial</b>	<b>Burden Hours per Permit - Commercial/ Residential<sup>a</sup></b>
<b>Preparation and Planning</b>		
Determination of Compliance Requirements	170	170
Obtain Guidance on Data Needs	120	120
Preparation of BACT Analysis	102	102
<b>Data Collection and Analysis</b>		
Air Quality Modeling	200	40
Determination of Impact on Air Quality Related Values	100	30
Post-construction Air Quality Monitoring	50	20
<b>Permit Application</b>		
Preparation and Submittal of Permit Application	60	60
Public Hearings	24	24
Revisions to Permit	40	40
<b>Total Burden</b>	<b>866</b>	<b>606</b>
<p><sup>a</sup>PSD permit applications for commercial/residential sources will be significantly simpler than industrial source PSD permit applications. However, due to their inexperience, we estimate commercial/residential sources will take as long to complete their steps for their permit application as it will for industrial sources to complete their steps. Commercial/residential sources will, on average, have much less work for data collection and analysis. We estimate that they will have approximately 25% as much work in these areas (90 hours) compared to industrial sources (350 hours). However, commercial/residential sources will have to spend some time on data collection analysis because some of them will have conventional pollutants that they emit in amounts that exceed the "significance" levels, but not the "major" levels, and they will have to analyze those conventional pollutants. Our 25% estimate is based, in the absence of actual experience or quantitative data from commenters, on our judgment that significantly less than 50% of commercial/residential sources emit conventional pollutants in amounts that equal or exceed the significance levels, but those that do may have to spend more time than industrial sources on data collection because they are unfamiliar with the tasks and therefore will face a learning curve.</p>		

**Table 4. Source Respondent Burden and Cost (Annual)**

Activity	Number of Units		Hours per Unit	Total Hours	Total Cost (\$) <sup>b</sup>	Annual Hours	Annual Cost (\$)
	Year 1 <sup>a</sup>	Year 2					
<b>Part C (PSD)</b>							
PSD Permit Preparation and Issuance - Industrial	458	915	866	1,189,018	\$116,060,047	594,509	\$58,030,023
PSD Permit Preparation and Issuance - Commercial/Residential	2	4	606	3,636	\$354,910	1,818	\$177,455
Current PSD Applications with Additional GHG Requirements	688	688	1088	1,497,088	\$146,130,760	748,544	\$73,065,380
Direct Costs for Pre-construction Air Quality Monitoring	34	34			\$22,792,000		\$11,396,000
<b>Total</b>	<b>1182</b>	<b>1641</b>		<b>2,689,742</b>	<b>\$285,337,717</b>	<b>1,344,871</b>	<b>\$142,668,858</b>
<b>Part D (Non-attainment)</b>							
Preparation and Planning							
Determination of Compliance Requirements	519	519	150	155,700	\$15,197,877	77,850	\$7,598,939
Obtain Guidance on Data Needs	519	519	100	103,800	\$10,131,918	51,900	\$5,065,959
Data Collection and Analysis							
Preparation of LAER Engineering Analysis	519	519	52	53,976	\$5,268,597	26,988	\$2,634,299
Demonstrate Offsets	519	519	52	53,976	\$5,268,597	26,988	\$2,634,299
Prepare Analysis of Alternative Sites, Processes, etc.	519	519	60	62,280	\$6,079,151	31,140	\$3,039,575
Air Quality Modeling	519	519	130	134,940	\$13,171,493	67,470	\$6,585,747
Permit Application							
Preparation and Submittal of Permit Application	519	519	49	50,862	\$4,964,640	25,431	\$2,482,320
Public Hearings	519	519	25	25,950	\$2,532,980	12,975	\$1,266,490
Revisions to Permit	519	519	24	24,912	\$2,431,660	12,456	\$1,215,830
<b>Total</b>			<b>642</b>	<b>666,396</b>	<b>\$65,046,914</b>	<b>333,198</b>	<b>\$32,523,457</b>
<b>Minor NSR</b>							
Preparation and Submittal of Minor NSR Permit Application	74,591	74,591	40	5,967,280	\$468,276,000	2,983,640	\$234,138,000
<b>Grand Total</b>	<b>76,292</b>	<b>76,751</b>		<b>8,681,934</b>	<b>\$756,045,377</b>	<b>4,340,967</b>	<b>\$378,022,688</b>
<sup>a</sup> Year 1 is comprised of Step 1 and six months of Step 2 under the GHG Tailoring Rule; throughout Year 2 Step 2 will be in place. <sup>b</sup> Labor cost of \$97.61/hr from Prevention of Significant Deterioration and Non-Attainment Area New Source Review (Renewal), EPA ICR Number 1230.23, OMB Control Number 2060-0003, 2008. <sup>c</sup> Assume preparation and issuance of commercial/residential permits takes 70% the amount of time needed to prepare and issue an industrial permit. For current permit applications, assume it takes an additional 222 hours to include GHG requirements in the permit.							

**Table 5. Agency Burden and Cost For the Two-Year Period**

Activity	Number of Units		Hours per Unit	Total Hours	Total Cost (\$)	Annual Hours	Annual Cost (\$)
	Year 1 <sup>a</sup>	Year 2					
<b>Part C (PSD)</b>							
Review and Verify Applicability Determination	1,148	1,607	2	5,510	\$237,867	2,755	\$118,933
Review Control Technology Determination	1,148	1,607	4	11,020	\$475,733	5,510	\$237,867
Evaluate Air Quality Monitoring	1,148	1,607	4	11,020	\$475,733	5,510	\$237,867
Evaluate Alternative and Secondary Impact Analysis	1,148	1,607	2	5,510	\$237,867	2,755	\$118,933
Evaluate Class I Area Analysis	1,148	1,607	2	5,510	\$237,867	2,755	\$118,933
Administrative Tasks	1,148	1,607	1	2,755	\$118,933	1,378	\$59,467
<b>Total</b>			<b>15</b>	<b>41,325</b>	<b>\$1,784,000</b>	<b>20,663</b>	<b>\$892,000</b>
<b>Part D (Non-attainment)</b>							
Review and Verify Applicability Determination	519	519	2	2,076	\$89,621	1,038	\$44,810
Review Control Technology Determination	519	519	4	4,152	\$179,242	2,076	\$89,621
Evaluate Offsets	519	519	1	1,038	\$44,810	519	\$22,405
Evaluate Air Quality Monitoring	519	519	5	5,190	\$224,052	2,595	\$112,026
Evaluate Alternative and Secondary Impact Analysis	519	519	3	3,114	\$134,431	1,557	\$67,216
Administrative Tasks	519	519	1	1,038	\$44,810	519	\$22,405
<b>Total</b>			<b>16</b>	<b>16,608</b>	<b>\$716,967</b>	<b>8,304</b>	<b>\$358,484</b>
<b>Minor NSR</b>							
Review Synthetic/Netting-Based Minor NSR Permits	2,825	2,825	2	11,300	\$487,821	5,650	\$243,911
<b>Grand Total</b>	<b>4,492</b>	<b>4,951</b>		<b>69,233</b>	<b>\$2,988,789</b>	<b>34,617</b>	<b>\$1,494,394</b>

<sup>a</sup>Year 1 is comprised of Step 1 and six months of Step 2 under the GHG Tailoring Rule; throughout Year 2 Step 2 will be in place.

Activity	Burden Hours per Permit	Affected Permits		Total Burden (hours)	Total Cost (\$2007) <sup>a</sup>
		Year 1	Year 2		
PSD Permit Preparation and Issuance - Industrial	301	458	915	413,273	\$31,912,941
PSD Permit Preparation and Issuance - Commercial/Residential <sup>b</sup>	210	2	4	1,260	\$97,297
Additions to Current PSD Applications <sup>c</sup>	50	688	688	68,800	\$5,312,736
SIP Revisions	40	14	0	560	\$43,243
<b>Total Additional Burden</b>				<b>483,893</b>	<b>\$37,366,217</b>

<sup>a</sup>Labor cost of \$77.22/hr from Prevention of Significant Deterioration and Non-Attainment Area New Source Review (Renewal), EPA ICR Number 1230.23, OMB Control Number 2060-0003, 2008.

<sup>b</sup>Assume preparation and issuance of commercial/residential permits takes 70% the amount of time needed to prepare and issue an industrial permit.

<sup>c</sup>For current permit applications, assume it takes an additional 50 hours to include GHG requirements in the permit.

Activity	Burden Hours per Permit	Affected Permits		Total Burden (hours)	Total Cost (\$2007) <sup>a</sup>
		Year 1	Year 2		
PSD Permit Preparation and Issuance - Industrial	866	458	915	1,189,018	\$116,060,047
PSD Permit Preparation and Issuance - Commercial/Residential <sup>b</sup>	606	2	4	3,636	\$354,910
Additions to Current PSD Applications <sup>c</sup>	222	688	688	305,472	\$29,817,122
<b>Total Additional Burden</b>				<b>1,498,126</b>	<b>\$146,232,079</b>

<sup>a</sup>Labor cost of \$97.61/hr from Prevention of Significant Deterioration and Non-Attainment Area New Source Review (Renewal), EPA ICR Number 1230.23, OMB Control Number 2060-0003, 2008.

<sup>b</sup>Assume preparation and issuance of commercial/residential permits takes 70% the amount of time needed to prepare and issue an industrial permit.

<sup>c</sup>For current permit applications, assume it takes an additional 222 hours to include GHG requirements in the permit.