

**ATTACHMENT A:**

**THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT (“DISTRICT”) RESPONSES  
TO COMMENTS SUBMITTED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (“EPA”)  
ON THE PROPOSED MAJOR FACILITY REVIEW PERMIT FOR OWENS-CORNING, SITE #A0041.**

Permit Issuance Year: 2003

<b>Comment #</b>	<b>EPA Comment</b>	<b>District Response</b>
1	<p><u>Flexographic Ink Printing</u> This facility operates two flexographic printers (sources S-157 and S-158) and is potentially subject to MACT for flexographic ink printing, 40 CFR 63 subpart KK. This MACT applies to wide-web flexographic printing presses (40 CFR section 63.820) at major sources of Hazardous Air Pollutants. The standard requires the facility to limit the HAP content of the materials used at the facility or use emission controls (section 63.825), and contains associated compliance requirements. Please add an applicability determination for this standard to the Statement of Basis and include any applicable limits and requirements in the final permit.</p>	<p>Section 63.822 in 40 CFR 63, Subpart KK (MACT KK) defines wide-web flexographic presses as follows: “A flexographic press capable of printing substrates greater than 18 inches in width.”</p> <p>In response to the potential applicability of MACT KK to flexographic presses S-157 and S-158, Owens Corning had previously indicated to the District that the afore-referenced presses are not capable of printing substrates with widths exceeding 18 inches and hence are not subject to the requirements in MACT KK.</p> <p>In light of the above, no changes have been made to the Final Major Facility Review Permit (“final permit”).</p> <p>Also, the District is not amending the Statement of Basis for this permit, since changes made to the proposed permit for final issuance are fully explained in the Responses to Comments.</p>
2.	<p><u>Wool Fiberglass Manufacturing MACT</u> The District has identified the source as subject to the National Emission</p>	<p>Most of the applicable regulatory requirements identified by this comment were implicitly incorporated in Table VII of the Proposed Major Facility Review Permit (“proposed permit”). In response to the comment, the District</p>

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	<p>Standard for Hazardous Air Pollutants for Wool Fiberglass Manufacturing, 40 CFR 63 subpart NNN. It appears that the following requirements should be added to Section VII of the permit. You may wish to add a new Table of facility-wide requirements to Section VII as a convenient location to list resin recordkeeping requirements, etc. (Section IV lists requirements from 63.1383(b)(3) and (5) but they are not included in section VII of the permit and do not specifically state what the company is required to do.)</p>	<p>has revised Table VII to ensure that each of these requirements is made explicit. The District also amended Table VII in a few places to include applicable limitations that were not initially addressed. Each individual regulatory provision mentioned in the comment is discussed in detail below on a section-by-section basis.</p> <p>[Note that the sections are addressed in a slightly different order than they were listed in the EPA’s comments, for ease of understanding. Note also that there appears to be a typographical error with respect to several of the sections pointed out by the reviewer, i.e. 63.1383 (b)(3) and 63.1383 (b)(5), since no such sections exist in 40 CFR 63, Subpart NNN (MACT NNN). The following discussion assumes the intended sections were Sections 63.1382 (b)(3) and 63.1382 (b)(5), respectively.]</p>
2.a.	<p>63.1382(b)(3): cold top monitoring for 120 degree C / 250 degree F temperature limit</p> <p>63.1383 (d) requires cold-top furnace temperature monitoring</p>	<p>40 C.F.R. § 63.1382(b)(3) requires that the temperature measured between 18 and 24 inches above the surface of cold top electric furnaces must be maintained below 120°C/250°F; and 40 C.F.R. § 63.1383(d) requires that the temperature be monitored at least once per shift. This temperature requirement – and monitoring to ensure compliance with the requirement – are important because maintaining the temperature below the required level reduces PM emissions from the furnace. Table VII-A is thus amended in the final permit to explicitly address these provisions by including a line specifying that the temperature must be maintained below 120°C/250°F as required by Section 1382(b)(3), and must be monitored at least once per shift as required by Section 1383(d). In addition, permit condition 16834, which governs the cold-top electric furnaces, has been amended to expressly include these temperature and monitoring requirements; and a schedule of compliance is being provided since the facility is not currently implementing them.</p> <p>Owens-Corning claims that it is exempt from the temperature monitoring</p>

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		<p>requirement in Section 63.1383(d) because the batch-wetting process it used in demonstrating compliance with the Particulate Matter (PM) emission limit in Section 63.1382 (a)(1) of MACT NNN should be considered an “add-on control” used to control PM emissions. The batch wetting process involves wetting the mixed glass batch with water as the batch is deposited onto each individual furnace’s charging conveyor. As such, it is an integral part of the furnace’s production process. The District considers the batch-wetting procedure to be a control practice, and not an “add-on” control separate and in addition to the operation of the furnace, such as a baghouse or an electrostatic precipitator would be.</p> <p>Notably, Owens-Corning has effectively conceded that the furnaces at issue do not use add-on controls, as the company agreed that the furnaces are subject to Section 63.1383(e), which requires the company to monitor the rate of water flow to the batch wetting process. Section 63.1383(e) excepts add-on controls in the same manner as Section 63.1383(d). If Owens-Corning’s furnaces actually did use add-on controls, the company would not have claimed that they were subject to Section 63.1383(e).</p> <p>The District thus agrees with Owens-Corning that the furnaces are subject to Section 63.1383(e), and for the same reasons are also subject to Section 63.1383(d). The District has clarified the applicability of Section 63.1383(e) in the final permit by amending Table VII-A as it relates to the batch wetting water flow rate. The amended table specifies the required water flow rate (<math>\geq 0.3</math> GPM) and the permit condition that requires it; as well as the daily water flow rate monitoring required by Section 63.1383(e).</p>
2.b.	63.1382(b)(5): monitor production rate (unless existing production limit ensures that source will not vary production by >20% from tested rate)	The production rate (or “glass pull rate”) requirement was referred to in Table VII-A of the proposed permit. To make this requirement more explicit in the final permit, the District has amended Table VII-A to specify the glass pull rate limit required by Section 63.1382(b)(5), as well as the hourly pull rate

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		<p>monitoring required by Section 63.1383(f)(1).</p> <p>The average molten glass pull rate established for furnaces S-1 and S-19 during the performance test as specified in Section 63.1384 was 10,351 pounds/hour or 124.212 tons/day and 10,842 pounds/hour or 130.104 tons/day, respectively. The applicable limits in the permit are 20% above these rates, as specified by Section 63.1382(b)(5).</p>
2.c.	<p>63.1382(b)(6): monitor incinerator temperature to ensure that the three-hour firebox temperature does not fall below the average established during the performance test</p> <p>63.1383 (g) requires incinerator temperature monitoring</p>	<p>The incinerator firebox temperature requirement was referred to in Table VII-C of the proposed permit. To make this requirement more explicit in the final permit, the District has amended Table VII-C to specify the incinerator firebox temperature limit required by Section 63.1382(b)(6), as well as the requirement to continually monitor the incinerator firebox temperature as required by Section 63.1383(g)(1).</p> <p>The average incinerator firebox temperature established during the performance test as specified in Section 63.1384 was 1340 °F, and this temperature has been listed in Table VII-C as the applicable temperature limit.</p> <p>In addition, Part 5 of Permit Condition 20565 requires that Owens Corning inspect the incinerators on an annual basis per the inspection requirements outlined in Section 63.1383(g)(2). The District has similarly amended the final permit to specify the requirement for maintaining the incinerator in proper working order as required by the permit condition, as well as the annual inspection requirement required by Section 63.1383(g)(2).</p>
2.d.	63.1382(b)(7): the owner or operator must take corrective action within 1 hour when the average pressure drop, liquid flow rate, or chemical feed rate for each wet scrubbing device for any 3-hour	Section 63.1382 (b)(7) was not included in the Proposed Major Facility Review Permit and is excluded from the Final Major Facility Review Permit because there are no wet formaldehyde scrubbers at Owens Corning that would be subject to this requirement. The “O” cooling section is abated by “A-26 – Cooling Scrubber” which serves as a gross particulate removal device.

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	block is outside the limits established during the performance test	
2.e.	<p>63.1382(b)(9) resin free-formaldehyde content shall not exceed the range contained in the resin during the performance test</p> <p>63.1383 (j) requires free formaldehyde content monitoring</p>	<p>The resin formaldehyde content requirement was referred to in Table VII-B of the proposed permit. To make this requirement more explicit in the final permit, the District has amended Table VII-B to specify the resin formaldehyde content limit required by Section 63.1382(b)(9), as well as the formaldehyde content monitoring required by Section 63.1383(j).</p> <p>The resin formaldehyde content established during the performance test as specified in Section 63.1384 was 14.47% for S-2 and 14.44% for S-20, and these percentages have been listed in Table VII-C as the applicable limits.</p> <p>To avoid confusion in the final permit, the District has deleted a line from Table VII-C regarding the resin formaldehyde content requirement. Table VII-B lists permit limits applicable to the “M” and “O” forming sections, while Table VII-C lists permit limits applicable to the “M” and “O” curing ovens. The resin formaldehyde content requirement applies to the forming sections, not to the curing ovens. As a result, the formaldehyde content requirement should be listed in Table VII-B and not in Table VII-C, and the District has amended Table VII-C accordingly.</p>
2.f.	<p>63.1382(b)(10): the owner or operator must use a binder formulation that does not vary from the specification and operating range established and used during the performance test.</p> <p>63.1383 (k) requires resin [sic – should probably be “binder”] formulation content recordkeeping</p>	<p>The binder formulation requirement was referred to in Table VII-B of the proposed permit. To make this requirement more explicit in the final permit, the District has amended Table VII-B to specify the binder formulation limits required by Section 63.1382(b)(10), as well as the binder formulation monitoring required by Section 63.1383(k).</p> <p>The binder formulation established during the performance test as specified in Section 63.1384 was 2.07 lbs. phenol/formaldehyde resin per lb. of urea in the premix, and this formulation has been listed in Table VII-B as the applicable</p>

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		<p>limit.</p> <p>To avoid confusion in the final permit, the District has deleted a line from Table VII-C regarding the binder formulation requirement. Table VII-B lists permit limits applicable to the “M” and “O” forming sections, while Table VII-C lists permit limits applicable to the “M” and “O” curing ovens. The binder formulation requirement applies to the forming sections, not to the curing ovens. As a result, the binder formulation should be listed in Table VII-B and not in Table VII-C, and the District has amended Table VII-C accordingly.</p>
2.g.	63.1383 (i) requires process modification monitoring for the forming operation, if applicable	Section 63.1383(i) addresses process modifications that are used to control formaldehyde emissions from a line. Owens-Corning does not use any such modifications, and this section is therefore inapplicable.
2.h.	63.1383 (l) requires LOI and product density recordkeeping	The LOI and product density monitoring requirement was referred to in Table VII-D of the proposed permit. The second-to-last line in the table states that Owens-Corning is required to monitor finished product LOI and density. Because this requirement was fully set forth in the proposed permit, the District has not changed the final permit in this regard.
2.i.	Quality Improvement Plans are also required under a number of these sections if parameters fall outside the specified ranges	Quality Improvement Plans are not emissions or operating limitations applicable to sources at the facility, and are thus not included in Table VII. Rather, Quality Improvement Plans are required by MACT NNN in certain circumstances where a source exceeds emissions or operating limitations for more than 5% of any reporting period. See, e.g., 40 C.F.R. §§ 1382(b)(3)(ii), (b)(5)(ii), etc. These requirements are applicable to the Owens-Corning facility and are included in Table IV of the permit setting forth the “Applicable Requirements.” But they do not impose any “Applicable Limits” on Owens-Corning, and thus are not included in Table VII.

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3.	<u>Permit Shield</u>	
3.a	<p>The proposed shield for the flexographic printers (Table A-H) states that a Permit Shield has been proposed from District Rule 8-12 because the coating line is part of the Forming, Curing, and Cooling sections and is therefore exempt under 8-12-110.5. This proposed justification is incorrect because section 110.5 provides an exemption for sources subject to Rule 8-20 for Graphic Arts Printing and Coating Operations and does not appear to be related to the wool fiberglass manufacturing operations. Please remove this erroneous permit shield.</p>	<p>Section 8-12-110.5 in Regulation 8, Rule 12 states:  <b>“8-12-110 Exemptions:</b> This Rule shall not apply to the following:            110.5 Any coating line where printing or decorative design is applied on the same line. Such line is subject to Rule 20 of this Regulation unless exempted by that rule.”</p> <p>Sources 157 and 158 print product specifications and company logos, etc., on paper that is later applied to the backing of the finished wool fiberglass product, which exits the cooling section before it is packaged. These sources are thus exempt from Regulation 8, Rule 12 because the coating and printing are applied on the same line. As noted in the comment, these sources are subject to Regulation 8, Rule 20, and that Rule is addressed in the proposed permit. Table IV-T lists the applicable provisions in Regulation 8, Rule 20, as “Applicable Requirements,” and Table VII-R sets forth VOC content limits as required by Regulation 8, Rule 20.</p> <p>In light of the above, the District does not believe the permit shield to be erroneous and has not changed the final permit in this respect.</p>
3.b.	<p>Please also add to the Statement of Basis all of the permit shields proposed permit in the permit, as several are currently not included in the Statement of Basis.</p>	<p>Several of the permit shields included in the proposed permit were not fully explained in the statement of basis. These permit shields are included in the final permit, and the basis for them is provided below:</p> <p><b>Permit Shield IX A-F:</b> BAAQMD Regulation 8, Rule 5, Section 8-5-117, Storage of Organic Liquids; applicable to sources S-50 – Resin Tank # 1 (East) Phenol Formaldehyde Resin – Aqueous, and S-51 – Resin Tank # 2 (West) Phenol Formaldehyde Resin – Aqueous. This permit shield is</p>

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		<p>applicable here because the standard does not apply to tanks storing organic liquids with a true vapor pressure less than or equal to 0.5 psia.</p> <p><b>Permit Shield IX A-G:</b> BAAQMD Regulation 8, Rule 51, Section 8-51-115, Adhesive and Sealant Products; applicable to sources S-69 – “M” Line Asphalt Applicator, and S-70 – “O” Line Asphalt Applicator. This permit shield is applicable here because the standard does not apply if the VOC content of adhesive or sealant is less than 20 grams per liter.</p> <p><b>Permit Shield IX A-H:</b> BAAQMD Regulation 8, Rule 12, Section 8-12-110.5, Paper, Fabric and Film Coating; applicable to sources S-157 – “M” Machine Flexographic Building Insulation Printers, and S-158 – “O” Machine Flexographic Printers. This permit shield is applicable here because the standard does not apply to the coating line since it is part of the Forming, Curing, and Cooling sections. The ink from the printers is printed on to 35 pound natural kraft and natural kraft/foil laminated paper.</p> <p><b>Permit Shield IX A-I:</b> BAAQMD Regulation 8, Rule 5, Section 8-5-117, Storage of Organic Liquids; applicable to sources S-160 – Binder Red Dye Tank. This permit shield is applicable here because the standard does not apply to tanks storing organic liquids with a true vapor pressure less than or equal to 0.5 psia.</p> <p><b>Permit Shield IX A-J:</b> BAAQMD Regulation 8, Rule 5, Section 8-5-117, Storage of Organic Liquids; applicable to sources S-161 – Premix Tank, T-19 S-162 – Premix Tank, T-20. This permit shield is applicable here because the standard does not apply to tanks storing organic liquids with a true vapor pressure less than or equal to 0.5 psia.</p> <p><b>Permit Shield IX A-J:</b> 40 CFR Part 60, Subpart Ka, Section 60.110a(a), Standards of Performance for Storage Vessels for Petroleum Liquids for</p>



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		<p>Which Construction, Reconstruction, or Modification Commenced after May 18, 1978 and Prior to July 23, 1984; applicable to sources S-161 – Premix Tank, T-19, and S-162 – Premix Tank, T-20. This permit shield is applicable here because the standard does not apply because the liquid storage capacities of tanks S-161 and S-162 is less than 40,000 gallons and the tanks do not store petroleum liquids.</p>
4	<p><u>Source Test Notifications</u>            We suggest that you consider increasing advance notice of source tests from 7 days to 30 days (section VI condition 20565, page 80), and allowing District staff 30 days to review source test protocols prior to the source test. This would allow District staff an opportunity to review the test protocols in advance.</p>	<p>The District has changed the advance notice of source tests from 7 days to 30 days for the following permit conditions in the Final Major Facility Review Permit:</p> <ul style="list-style-type: none"> <li>• Part 5 - Permit Condition 12672;</li> <li>• Parts 8, 9 and 10 – Permit Condition 16834;</li> <li>• Parts 6 and 9 – Permit Condition 20565;</li> <li>• Parts 5 and 6 – Permit Condition 20566.</li> </ul>