

**Texas Commission on Environmental Quality  
 Degreasing Units  
 Air Permits by Rule (PBR) Checklist  
 Title 30 Texas Administrative Code § 106.454**

Check the most appropriate answer and include any additional information in the spaces provided. If additional space is needed, please include an extra page and reference the rule number. The permit by rule (PBR) forms, tables, checklists, and guidance documents are available from the Texas Commission on Environmental Quality (TCEQ), Air Permits Division Web site at:

[www.tceq.texas.gov/permitting/air/nav/air\\_pbr.html](http://www.tceq.texas.gov/permitting/air/nav/air_pbr.html).

This PBR (§ 106.454) requires registration with the commission’s Office of Air in Austin before construction begins. The facility can be registered by completing [Form PI-7](#), “Registration for Permits by Rule,” or [Form PI-7-CERT](#), “Registration and Certification for Permits by Rule.” This checklist should accompany the registration form.

For additional assistance with your application, including resources to help calculate your emissions, please visit the Small Business and Local Government Assistance (SBLGA) webpage at the following link:

[www.TexasEnviroHelp.org](http://www.TexasEnviroHelp.org)

Rule	Questions/Description and Response
<b>(1)</b>	<b>All Degreasers</b>
(1)(A)(i)	Are you registering a <b>remote reservoir cleaner</b> ? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
<i>If “YES,” registration is NOT required. If registering voluntarily, complete parts (1), (2), and (6) of this checklist and submit <a href="#">Form PI-7</a> or <a href="#">Form PI-7-CERT</a> to register the degreaser.</i>	
(1)(A)(i)	Are you registering a <b>cold solvent cleaner</b> ? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
<i>If “YES,” registration is NOT required if the total solvent makeup (gross usage minus waste disposal) does not exceed 110 gallons per year. If registering, complete parts (1), (3), and (6) of this checklist and submit <a href="#">Form PI-7</a> or <a href="#">Form PI-7-CERT</a> to register the degreaser.</i>	
(1)(A)(i)	Are you registering an <b>open top solvent vapor degreaser</b> ? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
<i>If “YES,” complete parts (1), (4), and (6) of this checklist and submit <a href="#">Form PI-7</a> or <a href="#">Form PI-7-CERT</a> to register the degreaser.</i>	
(1)(A)(i)	Are you registering a <b>conveyorized degreaser</b> ? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
<i>If “YES,” complete parts (1), (5), and (6) of this checklist and submit <a href="#">Form PI-7</a> or <a href="#">Form PI-7-CERT</a> to register the degreaser.</i>	
(1)(A)(ii)	Will records be kept on a monthly basis of the total solvent makeup (gross usage minus waste disposal)? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
(1)(B)	Will waste solvent from all degreasing operations be stored in covered containers, and be removed by a licensed disposal service or until emptying into an authorized on-site waste management facility? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
(1)(C)	Will porous or absorbent materials, such as cloth, leather, wood, or rope be degreased? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
(1)(D)	Will leaks be repaired immediately? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>

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<b>(1)</b>	<b>All Degreasers (continued)</b>
(1)(D)	When leakage occurs, will the degreaser be shut down until repairs are completed? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
(1)(E)	Will a permanent and conspicuous label summarizing proper operating procedures to minimize emissions be posted on or near the degreaser? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
(1)(F)	Will each degreasing unit, regardless of the county in which it is located, meet the requirements of <a href="#">30 TAC § 115.412</a> and <a href="#">§ 115.415</a> (relating to Control Requirements and Testing Requirements)? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
<b>(2)</b>	<b>Remote Reservoir Cleaners</b>
(2)(A)	Will the cleaner be designed to prevent exposure of the solvent reservoir to the atmosphere except for the drain openings? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
(2)(A)	What is the total area of the drain openings? _____ square inches
<i>Note: The total area of the drain openings is the radius of the drain (r) in inches squared and multiplied by 3.14 (π), Area = (πr<sup>2</sup>). If there is more than one drain opening, calculate the area of each drain and sum the total.</i>	
(2)(A)	Will the total area of the drain openings be less than or equal to 16 square inches? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
(2)(A)	What is the total cleaner open area? _____ square inches
<i>Note: The total cleaner open area is the open area length in inches multiplied by the open area width in inches.</i>	
(2)(A)	Will the total area of the drain openings be less than or equal to 3% of the total cleaner open area? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
<i>Note: Divide the total area of the drain openings by the total cleaner open area and multiply by 100 to get the requested percent (%) value.</i>	
(2)(B)	Will all solvent sprays be a solid fluid stream (not a fine, atomized, or shower type spray) and at a minimal operating pressure that is necessary to prevent splashing? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
(2)(B)	What is the maximum operating pressure of all solvent sprays? _____ psig
(2)(C)	What is the true vapor pressure of the solvent at 100 degrees Fahrenheit? _____ psia
(2)(D)	Will the solvent be heated? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>

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<b>(3)</b>	<b>Cold Solvent Degreasers</b>
(3)(A)	What is the depth of the water cover? _____ inches <input type="checkbox"/> NA
(3)(A)	Will the solvent be insoluble in and heavier than water? <input type="checkbox"/> YES <input type="checkbox"/> NO
(3)(A)	What is the freeboard ratio of the cleaner? _____ <input type="checkbox"/> NA
<i>Note: The freeboard ratio of the cleaner is the distance from top of the solvent level to the top edge of the degreasing tank in inches divided by the degreaser width in inches.          Note: If the cleaner has a water cover, mark this "NA" and skip the next question.</i>	
(3)(B)	Will the unit be equipped with a cover which is closed whenever parts are not being handled in the cleaner? <input type="checkbox"/> YES <input type="checkbox"/> NO
(3)(B)	Will the cover be designed for easy one-handed operation? <input type="checkbox"/> YES <input type="checkbox"/> NO
<i>Note: This requirement must be met if you answer "YES," to one or more of questions (3)(B)(i), (3)(B)(ii), or (3)(B)(iii) below.</i>	
(3)(B)(i)	What is the true vapor pressure of the solvent at 100 degrees Fahrenheit? _____ psia
(3)(B)(ii)	Will the solvent be agitated? <input type="checkbox"/> YES <input type="checkbox"/> NO
(3)(B)(iii)	Will the solvent be heated? <input type="checkbox"/> YES <input type="checkbox"/> NO
(3)(C)	Will a solvent spray be used? <input type="checkbox"/> YES <input type="checkbox"/> NO
<i>Note: If a solvent spray is used, it must be a solid fluid stream (not a fine, atomized, or shower-type spray) with a minimal operating pressure to prevent splashing.</i>	
(3)(C)	What is the operating pressure of the solvent spray? _____ psig <input type="checkbox"/> NA
<i>Note: If a solvent spray is not used, mark this "NA" and skip the next question.</i>	
(3)(C)	Will the operating pressure of the solvent spray be 10 psig or less? <input type="checkbox"/> YES <input type="checkbox"/> NO
(3)(D)	Will parts be drained for at least 15 seconds or until dripping ceases? <input type="checkbox"/> YES <input type="checkbox"/> NO
(3)(D)	Will an internal cleaned parts drainage rack or facility, for enclosed draining under a cover, be provided? <input type="checkbox"/> YES <input type="checkbox"/> NO
(3)(D)	Will an external cleaned parts drainage rack or facility, for enclosed draining under a cover, be used? <input type="checkbox"/> YES <input type="checkbox"/> NO
<i>Note: An external cleaned parts drainage rack or facility may be used if the true solvent vapor pressure is less than 0.6 psia.</i>	
(3)(D)	What is the true vapor pressure of the solvent at 100 degrees Fahrenheit? <input type="checkbox"/> NA
	_____ psia

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Rule	Questions/Description and Response
<b>(3)</b>	<b>Cold Solvent Degreasers (continued)</b>
(3)(E)	Are you registering the cleaner using <a href="#">Form PI-7</a> or <a href="#">Form PI-7-CERT</a> ? <input type="checkbox"/> YES <input type="checkbox"/> NO
<i>Note: Registration is not required if the total solvent makeup (gross usage minus waste disposal) is 110 gallons per year or less.</i>	
(3)(F)(i)	What will be the total solvent makeup (gross usage minus waste disposal) for chlorinated solvents? _____ gallons per year
(3)(F)(ii)	What will be the total solvent makeup (gross usage minus waste disposal) for all other solvents? _____ gallons per year
<b>(4)</b>	<b>Open Top Solvent Degreasers</b>
(4)(A)	What is the surface area of the solvent? _____ square feet
(4)(B)	Will the unit be equipped with a cover that can be opened and closed easily without disturbing the vapor zone? <input type="checkbox"/> YES <input type="checkbox"/> NO
(4)(B)	What is the area of the degreaser opening? _____ square feet
(4)(B)	Will the unit be equipped with a powered cover? <input type="checkbox"/> YES <input type="checkbox"/> NO
(4)(C)	Will the cover be closed at all times except when parts are moved into and out of the degreaser? <input type="checkbox"/> YES <input type="checkbox"/> NO
(4)(D)	Will the unit be equipped with a properly sized refrigerated chiller? <input type="checkbox"/> YES <input type="checkbox"/> NO
<i>If "NO," the degreaser must meet the freeboard ratio requirement below.</i>	
(4)(D)	What is the freeboard ratio of the unit? _____ <input type="checkbox"/> NA
<i>Note: The freeboard ratio of the cleaner is the distance from top of the solvent level to the top edge of the degreasing tank in inches divided by the degreaser width in inches.</i>	
<i>Note: If the unit has a properly sized refrigerated chiller, mark "NA" and skip the next question.</i>	
(4)(E)	What is the total cleaner open area? _____ square feet
<i>Note: The total cleaner open area in square feet is the open area length in inches multiplied by the open area width in inches divided by 144 square inches.</i>	
(4)(E)	Will exhaust ventilation for the unit operate between 50 and 65 cubic feet per minute (cfm) per square foot of degreaser open area? <input type="checkbox"/> YES <input type="checkbox"/> NO
<i>If "NO," attach a description explaining how this requirement conflicts with Occupational Safety and Health Administration (OSHA) requirements.</i>	

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Rule	Questions/Description and Response
<b>(4)</b>	<b>Open Top Solvent Degreasers (continued)</b>
(4)(E)	Will ventilation fans or other sources of air agitation be operated near the degreaser opening? <input type="checkbox"/> YES <input type="checkbox"/> NO
(4)(F)	Will exhaust stacks discharge vertically with no restrictions or obstructions to flow? <input type="checkbox"/> YES <input type="checkbox"/> NO
(4)(F)	What is the stack height as measured from ground level? _____ feet
(4)(F)	What is the building height as measured from ground level? _____ feet
(4)(F)	Is the ratio of the stack height to the building height at least 1.3? <input type="checkbox"/> YES <input type="checkbox"/> NO
<i>Note: To determine the stack height ratio, divide the stack height in feet by the building height in feet.</i>	
(4)(G)(i)	What will be the total solvent makeup (gross usage minus waste disposal) for chlorinated solvents? _____ gallons per year
(4)(G)(ii)	What will be the total solvent makeup (gross usage minus waste disposal) for all other solvents? _____ gallons per year
<b>(5)</b>	<b>Conveyorized Degreasers</b>
(5)(A)	Will inlet and outlet openings be closed at all times except when processing work through the degreaser? <input type="checkbox"/> YES <input type="checkbox"/> NO
(5)(B)	What will be the volatile organic compound (VOC) removal efficiency of the unit's refrigerated chiller? _____ percent <input type="checkbox"/> NA
<i>Note: If the unit has no refrigerated chiller, mark this "NA" and skip the next question.</i>	
(5)(B)	Is the refrigerated chiller VOC removal efficiency at least 85%? <input type="checkbox"/> YES <input type="checkbox"/> NO
<i>Note: If the answer to this question is "NO," the freeboard ratio requirement below must be met.</i>	
(5)(B)	What is the freeboard ratio of the unit? _____ <input type="checkbox"/> NA
<i>Note: The freeboard ratio of the cleaner is the distance from top of the solvent level to the top edge of the degreasing tank in inches divided by the degreaser width in inches.</i>	
<i>Note: If the unit has a properly sized refrigerated chiller, mark this "NA."</i>	
(5)(C)	Will a drying tunnel or other means of control be used to limit liquid or vapor carry-out? <input type="checkbox"/> YES <input type="checkbox"/> NO
(5)(D)	Will entrances and exits to the degreaser be designed to silhouette work loads? <input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Rule</b>	<b>Questions/Description and Response</b>
<b>(5)</b>	<b>Conveyorized Degreasers (continued)</b>
(5)(E)	What is the total cleaner open area? _____ square feet
<i>Note: The total cleaner open area in square feet is the open area length in inches multiplied by the open area width in inches divided by 144 square inches.</i>	
(5)(E)	Will exhaust ventilation for the unit operate between 50 and 65 cubic feet per minute (cfm) per square foot of degreaser open area? <input type="checkbox"/> YES <input type="checkbox"/> NO
<i>If "NO," attach a description explaining how this requirement conflicts with Occupational Safety and Health Administration (OSHA) requirements.</i>	
(5)(E)	Will ventilation fans or other sources of air agitation be operated near the degreaser opening? <input type="checkbox"/> YES <input type="checkbox"/> NO
(5)(F)	Will exhaust stacks discharge vertically with no restrictions or obstructions to flow? <input type="checkbox"/> YES <input type="checkbox"/> NO
(5)(F)	What is the stack height as measured from ground level? _____ feet
(5)(F)	What is the building height as measured from ground level? _____ feet
(5)(F)	Is the ratio of the stack height to the building height at least 1.5? <input type="checkbox"/> YES <input type="checkbox"/> NO
<i>Note: To determine the stack height ratio, divide the stack height in feet by the building height in feet.</i>	
(5)(G)(i)	What will be the total solvent makeup (gross usage minus waste disposal) for chlorinated solvents? _____ gallons per year
(5)(G)(ii)	What will be the total solvent makeup (gross usage minus waste disposal) for all other solvents? _____ gallons per year
<b>(6)</b>	<b>All Degreasers</b>
Is the facility subject to <a href="#">30 TAC §§ 115.412-419</a> ? <input type="checkbox"/> YES <input type="checkbox"/> NO	
Why or Why Not?	
Is the facility subject to <a href="#">40 CFR Part 63, MACT Subpart T</a> ? <input type="checkbox"/> YES <input type="checkbox"/> NO	
Why or Why Not?	

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**Record Keeping:** There are no additional record keeping requirements other than the general requirements specified in [30 TAC § 106.8](#). The records must be made available immediately upon request to the commission or any air pollution control program having jurisdiction. If you have any question about the type of records that should be maintained, contact the Air Program in the [TCEQ Regional Office](#) for the region in which the site is located.

**Recommended Calculation Methods:** In order to demonstrate compliance with this PBR, use the emission factors for each air contaminant listed in the EPA Compilation of Air Pollutant Emission Factors (AP-42), Fifth Edition, Volume 1, Section 4.6: "Solvent Degreasing" at: [www.epa.gov/ttn/chief/ap42/index.html](http://www.epa.gov/ttn/chief/ap42/index.html). Additional guidance may be found in the TCEQ guidance on Degreasing Operations at: [www.tceq.texas.gov/permitting/air/guidance/newsourcereview/degreasing/nsr\\_fac\\_degrease.html](http://www.tceq.texas.gov/permitting/air/guidance/newsourcereview/degreasing/nsr_fac_degrease.html).