Requirements for Equipment
The applicant must provide the following information in accordance with 40 CFR Part 264, Subpart BB. [§270.25]

(1) Attach the following information for each piece of equipment to which Subpart BB of Part 264 applies (See TABLE B-1):
   (a) Equipment identification number and hazardous waste management unit identification;
   (b) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan);
   (c) Type of equipment (e.g., a pump or pipeline valve);
   (d) Percent by weight total organics in the hazardous waste stream at the equipment;
   (e) Hazardous waste state at the equipment (e.g., gas/vapor or liquid); and
   (f) Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").

(2) Facilities that cannot install a closed-vent system and control device to comply with the provisions of 40 CFR 264, Subpart BB on the effective date that the facility becomes subject to the provisions of 40 CFR 264 or 265, Subparts BB, attach an implementation schedule as specified in §264.1033(a)(2). (See TABLE B-2)

(3) If the applicant proposes to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system and chooses to use test data to determine the organic removal efficiency of the total organic compound concentration achieved by the control device, submit a performance test plan as specified in §264.1035(b)(3).

(4) Attach documentation that demonstrates compliance with the equipment standards in §§264.1052 to 264.1059. This documentation shall contain the records required under §264.1064. (See TABLES B-1 and B-3). The Chief may request further documentation before deciding if the applicant demonstrated compliance.

(5) Attach documentation to demonstrate compliance with §264.1060. Include the following information:
   (a) A list of all information references and sources used in preparing the documentation;
   (b) Records including the dates of each compliance test required by §264.1033(j);
   (c) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions" or other engineering texts acceptable to the Chief that present basic control device design information. The design
analysis shall address the vent stream characteristics and control device operation parameters as specified in §264.1035(b)(iii);

(d) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur; and

(e) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater.
**TABLE B-1**

**ALL EQUIPMENT SUBJECT TO ORGANIC EMISSION STANDARDS**

<table>
<thead>
<tr>
<th>Equip ID No.</th>
<th>Equip Type</th>
<th>Hazardous Waste Management Unit and Equipment Location</th>
<th>EPA Hazardous Waste Number</th>
<th>Brief Waste Description</th>
<th>Physical State</th>
<th>Percent by Weight Total Organics</th>
<th>Method of Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example 1</td>
<td>Valve</td>
<td>Storage Tank A, See Figure X*.</td>
<td>F001</td>
<td>Waste Halogenated Solvent</td>
<td>Liquid</td>
<td>95%</td>
<td>Fill in corresponding number as indicated in Attachment I.</td>
</tr>
</tbody>
</table>

* Figure X would be a drawing of the facility showing the locations of the affected equipment.

Note: This table was created in WordPerfect 6.1 with the “Table” feature. An electronic spreadsheet or database could also be used with the advantage of having the ability to sort the data according to equipment type or method of compliance. The sorted data will be useful to create a list of equipment that must be inspected on a monthly, quarterly or annual basis.
ATTACHMENT I

METHOD OF COMPLIANCE FOR SUBPART BB

1. Valves
   1. These valves shall be monitored monthly using Reference Method 21, and must maintain a reading of less than 10,000 ppm. Any valve for which a leak is not detected for two successive months may be monitored the first month of each succeeding quarter until a leak is detected. If a leak is detected, the Permittee must resume monitoring the valve monthly until a leak is not detected for two successive months. All leaks must be repaired and in compliance no later than 15 calendar days after leak detection, and a first attempt at repair must be made no later than 5 calendar days after leak detection [40 C.F.R. 264.1057(a)-(e)].

   2. These valves are considered leakless and achieve a no-detectable emissions limit (<500 ppm above background as measured by Reference Method 21) and must have performance tests conducted initially upon designation, annually, and as requested by the Regional Administrator [40 C.F.R. 264.1057(f)].

   3. These valves are considered to meet a performance level of 2 percent of all valves leaking for a single hazardous waste management unit and must comply with the required notification, monitoring, and repair program [40 C.F.R. 264.1061].

   4. The Permittee must comply with a skip-period leak detection and repair program for these valves [40 C.F.R. 264.1062].

   5. These valves are designated unsafe to monitor or difficult to monitor [40 C.F.R. 264.1057(g)-(h)]. Use 5U for unsafe and 5D for difficult. These valves shall be monitored at the frequencies specified in Table 2 and the Permittee must attach an additional written monitoring plan to meet the requirements of 40 C.F.R. 264.1057(g)-(h).

   6. These open-ended valves or lines shall comply with the requirements in 40 C.F.R. 264.1056.

8. Pumps
   8. This method applies if the pump is in light liquid service and does not fall under one of the three categories in numbers 8, 9, and 10.

   These pumps shall be inspected weekly and monitored monthly using Reference Method 21, and must maintain a reading less than 10,000 ppm and must comply with the leak repair program as specified in 40 C.F.R. 264.1052.
9. These pumps have a dual mechanical seal system that includes a barrier fluid between two seal and they must comply with the inspection and repair requirements of 40 C.F.R. 264.1052(d). The Permittee must attach detailed design, installation, and maintenance specifications and standard operating procedures for these pumps.

10. These pumps are designated for no-detectable emissions limit (<500 ppm above background as measured by Reference Method 21) and must be monitored initially upon designation, annually, and as requested by the Regional Administrator [40 C.F.R. 264.1052(e)].

11. These pumps are equipped with closed-vent systems capable of transporting any leakage from the seal or seals to a control device and must comply with the monitoring and inspection requirements of 40 C.F.R. 264.1060 [40 C.F.R. 264.1052(f)].

12. This method applies if the pump is in heavy liquid service. These pumps shall be monitored visually, audibly, by olfactory methods or other detection methods and comply with the required repair program [40 C.F.R. 264.1058].

13. This method applies only if the compressor does not fall under one of the two categories in numbers 13 or 14. These compressors must be equipped with a sensor that detects failure of the seal system, barrier fluid system, or both, where the sensor is checked daily or has an audible alarm that is checked monthly and the Permittee complies with the specified leak repair program [40 C.F.R. 264.1053(a)-(g)].

14. These compressors shall be equipped with closed-vent systems and control devices that comply with the monitoring requirements of 40 C.F.R. 264.1060 [40 C.F.R. 264.1053(h)].

15. These compressors operate with no detectable emissions. They shall be tested for compliance using Reference Method 21 initially upon designation, annually, and as requested by the Regional Administrator [40 C.F.R. 264.1053(l)].

16. This method applies only if the pressure relief device does not fall under the category in number 17. These pressure relief devices must be operated with no detectable emissions (<500 ppm above background, as measured by Reference Method 21) and must be monitored initially upon designation, annually, and at other times as requested by the Regional Administrator [40 C.F.R. 264.1053(l)].

17. These pressure relief devices shall be equipped with a closed-vent system capable of capturing and transporting leakage to a control device that meets the monitoring requirements of 40 C.F.R. 264.1060 [40 C.F.R. 264.1054(c)].
Closed-Vent Systems and Control Devices

The Permittee shall monitor these closed-vent systems and control devices in accordance with a monitoring schedule specified in a specific monitoring plan that the Permittee shall attach [40 C.F.R. 264.1060 and 264.1033]. The following options for inspection and monitoring are available:

18. These closed-vent systems that are designed to be operated with no detectable emissions (<500 ppm above background, as measured by Reference Method 21), which have joints, seams or other connections that are permanently or semi-permanently sealed shall be visually inspected at least once per year to check for defects [40 C.F.R. 264.1060 and 264.1033(l)(1)].

19. These closed-vent systems that are designed to be operated with no detectable emissions (<500 ppm above background, as measured by Reference Method 21) shall be monitored annually and at other times requested by the Regional Administrator using Method 21 [40 C.F.R. 264.1060 and 264.1033(l)(1)].

20. These closed-vent systems that are designated to operate below atmospheric pressure shall be visually inspected initially and at least once per year [40 C.F.R. 264.1060 and 264.1033(l)(2)].

21. These closed-vent systems have been designated as unsafe to monitor and are exempt from the inspection and monitoring requirements except that all components are required to be monitored as frequently as possible during safe-to-monitor times [40 C.F.R. 264.1060 and 264.1033(o)].

22. Each control device's monitor readings shall be inspected at least daily [40 C.F.R. 264.1060 and 264.1033(f)(3)].

Sampling Connection Systems

23. All sampling connection systems shall comply with the standards in 40 C.F.R. 264.1055.

Flanges and Other Connectors

24. These flanges and connectors shall be monitored visually, audibly, by olfactory methods or other detection methods at least monthly and shall comply with the required repair program if evidence of a leak is found [40 C.F.R. 264.1058].

25. These connectors are inaccessible or are ceramic or ceramic lined and are exempt from monitoring and recordkeeping requirements [40 C.F.R. 264.1058(e)].

Exempt Equipment

26. This equipment which contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for a period of less than 300 hours per year is exempt from the requirements of 264.1052 through 264.1060 [40 C.F.R. 264.1050(f)].
## Table B-2

**Process Equipment Subject to Subpart BB for Which Emissions Controls Are Not Installed**

<table>
<thead>
<tr>
<th>Equipment ID Number</th>
<th>Equipment Type</th>
<th>Hazardous Waste Management Unit and Location</th>
<th>Brief Waste Description</th>
<th>EPA Hazardous Waste Code</th>
<th>Physical State</th>
<th>Percent by weight Total Organics</th>
<th>Designation/ Method of Compliance</th>
<th>Installation Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: 1</td>
<td>Valve</td>
<td>Transfer from Solvent Storage Tank K673</td>
<td>Waste Halogenated Solvent</td>
<td>F001</td>
<td>liquid</td>
<td>95 %</td>
<td>Fill in # corresponding to appropriate equipment # as indicated in Attachment 1</td>
<td>12/97</td>
</tr>
</tbody>
</table>

* Figure X would be a drawing of the facility showing the locations of the affected equipment.
TABLE B-3

MONITORING FREQUENCY FOR UNSAFE OR DIFFICULT TO MONITOR VALVES

These valves are classified as unsafe to monitor or difficult to monitor [40 C.F.R. 264.1057(g)-(h)] and correspond to Method of Compliance Number 5 in Table 1. These valves shall be monitored at the frequencies specified below.

<table>
<thead>
<tr>
<th>Equip (Valve) ID No.</th>
<th>Hazardous Waste Management Unit</th>
<th>Equipment Location</th>
<th>Unsafe (U)</th>
<th>Difficult (D)</th>
<th>Frequency of Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example 1.</td>
<td>Storage Tank A</td>
<td>See Figure X*</td>
<td>U</td>
<td></td>
<td>Quarterly</td>
</tr>
</tbody>
</table>

* Figure X would be a drawing of the facility showing the locations of the affected equipment.