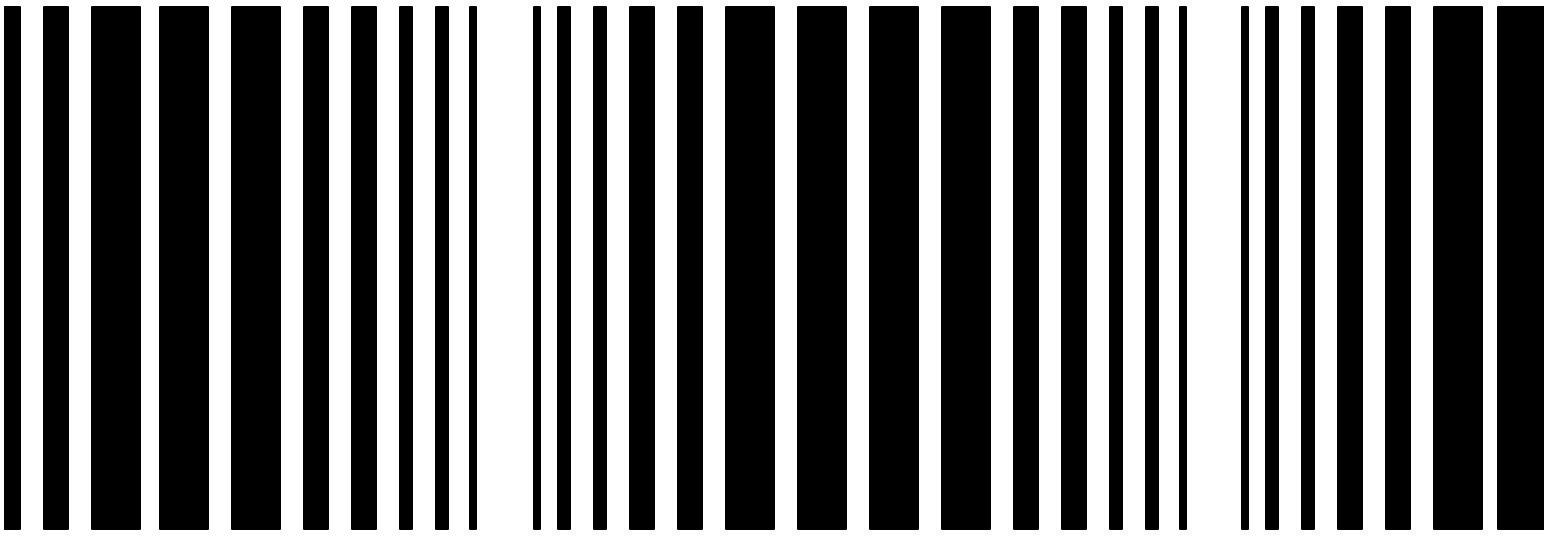
CAA and RCRA Overlap Provisions in Subparts AA, BB, and CC of 40 CFR Parts 264 and 265



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Introduction

The EPA fully recognizes that, in developing air standards to meet congressional directives established by provisions in the Clean Air Act (CAA) and Resource Conservation and Recovery Act (RCRA), the potential exists for regulatory overlap and that EPA's intention is to minimize, if not eliminate, regulatory overlap to the extent allowed under the different legislative acts. Section 1006(b) of RCRA indeed requires that the air standards be consistent with and not duplicative of CAA standards. Similarly, the Clean Air Act voices a strong preference for consistency of CAA section 112 standards and RCRA standards where practicable (see section 112(n)(7)).

The EPA decided that the best way to eliminate any regulatory overlap between the RCRA Air Rules and the various CAA national emission standards was to amend the RCRA Subpart AA, BB, and CC rules to exempt waste management units, process vents, and equipment components (otherwise subject to the standards) that are using air emission controls in accordance with the requirements of applicable Clean Air Act new source performance standard (NSPS) or national emission standard for hazardous air pollutants (NESHAP) regulations. Therefore, the RCRA Air Rules in Subparts AA, BB, and CC of part 264 and part 265 were amended to exempt any hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with an applicable Clean Air Act regulation codified under 40 CFR Part 60, Part 61, or Part 63. It is important to note that these exemptions only apply to those units, process vents, or equipment using organic air emission controls to comply with an applicable CAA regulation. The EPA has determined that this is the best way to assure that air emissions from hazardous waste management units are controlled to the extent necessary to protect human health and the environment.

Providing this exemption eliminates the possibility of duplicative or conflicting requirements for those hazardous waste treatment, storage, and disposal facility (TSDF) tanks, surface impoundments, containers, process vents, and equipment using organic emission controls in compliance with a NSPS or NESHAP under the CAA but also subject to requirements under the RCRA standards. The Agency considered it unnecessary for owners and operators of those waste management units subject to air standards under both sets of rules to perform duplicative testing and monitoring, keep duplicative sets of records, or perform other duplicative actions. Despite various restrictions and conditions that are

included in the individual RCRA Air Rule subparts, the EPA considers this approach to provide the facility owner or operator with a broader degree of compliance flexibility, and a less extensive monitoring, recordkeeping, and reporting burden under RCRA.

The purpose of this document is to provide the RCRA permit writer and inspector with guidance on the appropriate application of the RCRA Air Rules overlap exemption for facilities also subject to NSPS and NESHAP and on how to confirm that the facility is meeting all requirements under the CAA rules for the units, process vents, and equipment seeking exemptions under the overlap provisions of the RCRA Air Rules.

Section 1.0 of this document addresses the RCRA Air Rules' CAA/RCRA overlap provisions. A separate subsection is provided for each of the RCRA Air Rule subparts, i.e., Subpart AA, Subpart BB, and Subpart CC. Each subsection within Section 1.0 is divided into

- a discussion of the subpart's specific applicability and exemption provisions with a discussion of the background of the exemption and any conditions placed on the use of the exemption presented; and
- a discussion of the technical requirements relative to the air emission controls required by the RCRA Air Rules and the CAA NSPS and NESHAP that may apply to the facility.

Section 2.0 of the document addresses the documentation required by the RCRA Air Rule exemption provisions. A subsection is included for each of the RCRA Air Rule subparts that notes the documentation required specifically by the relevant subpart. Section 3.0 is a summary of the CAA regulations that potentially might overlap with the RCRA Air Rules. Section 4.0 discusses CAA enforceability and operating permit considerations related to confirming that applicable CAA requirements are met for the RCRA units, process vents, or equipment that are seeking exemptions under the overlap provisions of the RCRA Air Rules.

1.0 RCRA Air Rules' CAA/RCRA Overlap Provisions

1.1 Subpart AA–Air Emission Standards for Process Vents-CAA/RCRA Overlap Provisions

1.1.1 Applicability and Exemptions

In the December 8, 1997, revisions to the Subpart AA rules (62 FR 64635-64671), the EPA amended §264.1030 and §265.1030 (Applicability) to exempt from the requirements of Subpart AA any "process vents at a facility where the facility owner or operator certifies that all of the process vents that would otherwise be subject to this subpart are equipped with and operating air emission controls in accordance with the process vent requirements of an applicable Clean Air Act (CAA) regulation codified under 40 CFR Part 60, Part 61, or Part 63."

The EPA amended the applicability provision of Subpart AA by adding a new §264.1030(e) and §265.1030(d). This provision states that a process vent is not subject to the Subpart AA standards provided the owner or operator certifies that all Subpart AA-regulated process vents at the facility are equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified in Part 60, 61, or 63. This provision is quite similar to but not exactly the same as the one adopted by EPA for units subject to Subpart CC as part of the November 1996 amendments (see §264.1080(d) and §265.1080(d) of Subpart CC) and the logic for applying the exemption in much the same manner to Subpart AA process vents is identical to the rationale used by EPA for the Subpart CC revisions.

The Subpart AA process vent applicability exemption is, however, implemented slightly differently from the parallel exemption for Subpart CC units. Both compliance approaches allowed under the existing Subpart AA rules require emission control or emission limits on a facility-wide basis. See the provisions at 40 CFR 264.1032(a)(1) and (a)(2). Thus, to be equally protective of human health and the environment, the EPA considered it necessary that any alternative compliance demonstration require control of all

of the process vents at the facility that would have otherwise been regulated under Subpart AA. Therefore, the Subpart AA process vent applicability exemption is only available at a facility where each and every process vent that would otherwise be subject to Subpart AA is equipped with and operating air emission controls in compliance with an applicable CAA standard under Part 60, 61, or 63. The various individual vents could be regulated under different CAA rules as long as all vents (otherwise subject to Subpart AA) are controlled under an applicable CAA rule.

As with the similar exemption provisions in Subparts BB and CC, to comply with the requirements at paragraphs §264.1030(e) or§265.1030(d) and thus qualify for the applicability exemption, the emissions from each Subpart AA process vent must be routed through a closed-vent system to an air emission control device. A process vent that is in compliance with a CAA standard under an exemption from control requirements (i.e., is not equipped with and operating a control device) does not meet the criteria established in the provisions paragraph §264.1030(e) or §265.1030(d) of Subpart AA. Therefore, a unit that does not use the required air emission controls but is in compliance with a NESHAP through an "emission averaging" or "bubbling" provision does not qualify for the exemption. Similarly, if the Clean Air Act standard for the particular unit is no control (for example, because the Maximum Achievable Control Technology (MACT) floor for the source category is no control and the Agency decided not to apply controls more stringent than the floor), the exemption from the RCRA standards under §264.1030(e) or §265.1030(d) of Subpart AA would not apply since the unit would not actually be controlled (i.e., equipped and operating air emission controls) under provisions of the MACT standard.

To take the above example a step further, at a facility where all but one of the Subpart AA process vents are equipped with air emission controls for compliance under CAA rules and the one uncontrolled Subpart AA process vent is also in compliance with a CAA regulation but is not controlled for air emissions, the facility's Subpart AA process vents do not meet the applicability exemption criteria as stated in Subpart AA and thus are not exempt from the rule under §264.1030(e) or §265.1030(d). Despite this restriction, the EPA considers this alternative to provide the facility owner or operator with a broader degree of compliance flexibility, and less extensive monitoring, recordkeeping, and reporting requirements under RCRA.

1.1.2 Technical Requirements

The regulatory language used in the applicability exclusion under §264.1030(e) and §265.1030(d) does not condition the use of the Subpart AA RCRA/CAA overlap exemption on the relative stringency of the CAA rule under which the process vents are required to

install and operate air emission controls. No mention is made of relative stringency in the rule language. Therefore, the Subpart AA applicability exclusion in paragraphs (e) and (d) does not require that the CAA air emission controls be equivalent or more stringent than the control device requirements under Subpart AA for the affected waste management unit process vent. Language regarding the relative stringency of the various rules under which a process vent on a waste management unit could be required to install air emission controls was not considered necessary or meaningful relative to control of waste management unit process vents; this is because the technical control requirements prescribed in the various rules for these waste management unit process vents are for all practical purposes the same. Therefore, implementation of vent controls, regardless of what particular rule the controls are required under, results in approximately the same overall level of control device performance for the vent stream.

A review of the regulations affecting waste management unit process vents shows that the technical control requirements for process vents are relatively consistent with regard to control device performance. For the most part, both the RCRA and CAA rules for process vents require use (i.e., installation and operation) of a control device on the vent unless certain source category or rule specific criteria are met. For example, if the waste has an organic constituent concentration below a specified level or the vent flow and concentration are below stated diminimus values controls are not required. For the Subpart AA process vent rules in parts 264 and 265, the rules apply to specific unit operations that are managing hazardous wastes with organic concentrations of at least 10 ppmw. For the off-site waste and recovery operations NESHAP in part 63, the applicability criteria include a 500 ppmw Volatile Organic Hazardous Air Pollutant (VOHAP) concentration in the off-site material managed in the unit on which the process vent is located. The off-site waste and recovery NESHAP also has process vent flow and concentration criteria of 6 m^3/min and 20 ppmv for the vent stream. Part 63 in the HON also has flow rate and concentration criteria (0.005 scm/min and 50 ppmv total organic HAP concentration) that are used to categorize process vents for application of control devices. The rules, in general, require that the control device meet certain design, operational, and performance criteria and it is these control device technical requirements that are similar throughout the RCRA and CAA process vent rules. These performance or technical requirements are briefly summarized in Table 1.2.1-1.

1.2 Subpart BB–Air Emission Standards for Equipment Leaks-CAA/RCRA Overlap Provisions

1.2.1 Applicability and Exemptions

Compliance with EPA equipment leak standards is typically assessed through review of records that document implementation of the technical requirements of the rule. As originally promulgated (55 FR 25506, June 21, 1990), the Subpart BB recordkeeping and reporting requirements at §264.1064(m) and §265.1064(m) provided that "the owner or operator of any facility that is subject to this subpart (i.e., Subpart BB) and to regulations at 40 CFR Part 60, Subpart VV, or 40 CFR Part 61, Subpart V, may elect to determine compliance with this subpart (i.e., Subpart BB) by documentation either pursuant to §264.1064 of this subpart, or pursuant to those provisions of 40 CFR Part 60 or 61, to the

Table 1.2.1-1. Summary of RCRA and CAA Technical Control Requirements for Process Vent Control Devices

Control Device Technical Requirements	
Control Device Type	**Technical Control Requirement**
Enclosed combustion devises (e.g., thermal incinerator, catalytic incinerator, boiler, or process heater)	• 95 % destruction efficiency • 20 ppmv exit concentration • minimum residence and temperature, (e.g., 760 °C and 0.5 sec)
Recovery devices (e.g., carbon adsorber or condenser)	• 95 % overall recovery
Flares	• design and operational criteria (e.g., no visible emissions)

extent that the documentation under the regulation at 40 CFR Part 60 or 61 duplicates the documentation required under this subpart (i.e., Subpart BB)." The purpose of this paragraph in Subpart BB was to add a provision in the rule to provide for elimination of recordkeeping requirements that are duplicative of other Federal requirements for equipment leaks.

The amendments to the Subpart BB rules, published on December 8, 1997 (62 FR

64636-64671), revised the recordkeeping provisions of Subpart BB to eliminate owner or operator burden caused by regulatory overlap of the various EPA equipment leak regulations under the Clean Air Act and RCRA. The Subpart BB recordkeeping provisions in Section 264.1064(m) and Sec. 265.1064(m) were amended to allow any equipment that contains or contacts hazardous waste that is subject to Subpart BB and also subject to regulations in 40 CFR Part 60, 61, or 63 to determine compliance with Subpart BB by documentation of compliance with the relevant provisions of the Clean Air Act rules codified under 40 CFR Part 60, Part 61, or Part 63. As noted in the preamble to these amendments, "because compliance with Subpart BB is demonstrated through recordkeeping, this recordkeeping revision has the effect of exempting equipment that would otherwise be subject to Subpart BB from Subpart BB requirements, provided the equipment is operated, monitored, and repaired in accordance with an applicable CAA standard, and appropriate records are kept to that effect."

Paragraph §264.1064 (m) in the recordkeeping requirements states that the owner or operator "...may elect to determine compliance with this subpart either by documentation pursuant to §264.1064 of this subpart [i.e., Subpart BB], or by documentation of compliance with the regulations at 40 CFR Part 60, Part 61, or Part 63 pursuant to the relevant provisions of the regulations at 40 CFR Part 60, Part 61, or Part 63." The corresponding Part 265 language is the same. The objective of the amendment was to eliminate any owner or operator burden caused by regulatory overlap. In making the revision to paragraph (m) in §264.1064 and §265.1064 of Subpart BB, the Agency intended that, for a piece of equipment subject to equipment leak regulations under the CAA as well as RCRA Subpart BB, compliance with the CAA rules rather than the RCRA Subpart BB requirements would be an adequate demonstration of compliance and in effect eliminate the need to demonstrate compliance under Subpart BB of the RCRA Air Rules. The provisions in 40 CFR 264.1064(m) and 265.1064(m) are intended to allow a facility owner or operator to demonstrate compliance with all of subpart BB, through documentation of compliance with regulations under one of the specified parts of the CAA. Simply put, if a facility has equipment that is subject to relevant provisions (i.e., provisions for operating, monitoring, and repairing subpart BB equipment) under regulations within the specified CAA parts, that equipment is exempt from 40 CFR part 264 subpart BB. To be eligible for the exemption provided by 40 CFR 264.1064(m) or 265.1064(m): the relevant CAA requirements must be applicable to the subpart BB equipment; the relevant CAA requirements must include provisions for operation, monitoring, and repair of the Subpart BB equipment; the relevant

CAA requirements must be codified within 40 CFR part 60, 61, or 63; and compliance with the relevant CAA requirements must be documented in the facility operating record.

1.2.2 Technical Requirements

The regulatory language used in the revised paragraph (m) of Subpart BB does not condition the use of the CAA documentation of compliance in place of Subpart BB compliance on the relative stringency of the rule being used to document compliance. No mention is made of relative stringency in the rule language. That is, Subpart BB paragraph (m) does not require that the alternative CAA equipment leak rule be equivalent to or more stringent than the control requirements of Subpart BB. This type of rule language was not considered necessary or meaningful in relation to the Agency's equipment leak standards because differences in the various CAA and RCRA equipment leak rules in terms of technical requirements and overall control performance are marginal.

The EPA has promulgated a number of equipment leak regulations in 40 CFR Part 60, Part 61, and Part 63; although these rules may vary somewhat in format and administrative requirements, they contain nearly the same technical requirements (in terms of performance, work practice, and equipment requirements) and achieve approximately the same level of emissions control for the majority of equipment component types. For pumps and valves, there are differences in estimated control efficiencies that result from the use of different leak definitions and monitoring frequencies and, as a result, compliance with one of these equipment leak rules over another does result in slightly different emission reductions. However, the incremental emission reductions are small. The technical requirements covering other equipment components (e.g., sampling connections and open-ended lines) are the same in all the rules.

With regard to the control efficiencies for equipment leak control techniques, there are two primary techniques for reducing equipment leak emissions that form the basis of existing EPA regulations: 1) modifying or replacing existing equipment, and 2) implementing a leak detection and repair (LDAR) program. Table 1.2.2-1 presents a summary of equipment modifications that can be used for each equipment type with an approximate control efficiency for each modification. The equipment requirements (e.g., installing caps on open-ended lines or installing closed-loop sampling systems) are essentially the same in all of the Agency's equipment leak rules; therefore there are no real differences in rule stringency for these equipment types.

The LDAR program is a structured program to detect and repair equipment that is identified as leaking (i.e., emitting sufficient amounts of regulated material to warrant reduction of the emissions through repair); a portable monitoring device is used to identify

equipment leaks from individual pieces of equipment. LDAR programs are best suited to valves and pumps. The control effectiveness of any given LDAR program is dependent on a number of factors including leak definition and monitoring frequency as well as initial and final leak frequencies. The existing EPA equipment leak rules vary in a number of ways that relate to these program factors. Some formats specify the leak definition (e.g., 10,000 ppmv) and monitoring frequency (e.g., monthly or quarterly) and others specify the final leak frequency. The EPA has estimated the differences in control effectiveness at Synthetic Organic Chemical Manufacturing Industry (SOCMI) process units for typical LDAR programs that are in the 40 CFR Part 60, Part 61, and Part 63 equipment leak rules. These include: 1) monthly LDAR with a leak definition of 10,000 ppmv, similar to the requirements of Subpart BB of Parts 264 and 265, Subpart VV and Subpart GGG of part 60, and Subpart VV and Subpart J in Part 61; 2) LDAR equivalent to that specified in the hazardous organic NESHAP (or HON) in Subpart H of Part 63 that has a lower leak definition for pumps and valves (e.g., 500 ppmv for Phase II and III) and specifies the monitoring frequency based on the leak frequency. Table 1.2.2-2 summarizes the estimated control effectiveness for the two LDAR programs at SOCMI process units, which also were those used in the original Subpart BB analysis to characterize waste management unit equipment leak emissions. As the estimates in Tables 1.2.2-1 and 1.2.2-2 show, the differences in emission reductions achieved by the various equipment leak rules are minimal.

The fact that EPA intended to keep all the various equipment leak rules consistent (if not equivalent) is shown by the preamble language that describes the changes made to the Subpart BB rules in the November 25, 1996, Federal Register notice (61 FR 59937). In these changes, the EPA incorporated into the Subpart BB standards recent changes that were made to other national equipment standards that require equipment leak detection and repair programs. Revisions to the RCRA standards for equipment leaks consist of incorporating changes to the requirements so that the Subpart BB requirements in Parts 264 and 265 are consistent and up-to-date with the general decisions the EPA has made regarding leak detection and repair program requirements for organic air emission control in other regulations under the Clean Air Act (e.g., National Emission Standards for Hazardous Air Pollutants (NESHAP): Off-Site Waste and Recovery Operations, 61 FR 34140, July 1, 1996, or the National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks, 40 CFR Part 63, Subpart H, 59 FR 19402, April 22, 1994, i.e., the HON).

Table 1.2.2-1. Summary of Equipment Modifications

Equipment type	Modification	Approximate control efficiency (%)
Pumps	Sealless design	100 [a]
	Closed-vent system	90 [b]
	Dual mechanical seal with barrier fluid maintained at a higher pressure than the pumped fluid	100
Compressors	Closed-vent system	90 [b]
	Dual mechanical seal with barrier fluid maintained at a higher pressure than the compressed gas	100
Pressure relief devices	Closed-vent system	[c]
	Rupture disk assembly	100
Valves	Sealless design	100[a]
Connectors	Weld together	100
Open-ended lines	Blind, cap, plug, or second valve	100
Sampling connections	Closed-loop sampling	100

[a] Sealless equipment can be a large source of emissions in the event of equipment failure.

[b] Actual efficiency of a closed-vent system depends on percentage of vapors collected and efficiency of control device to which the vapors are routed.

[c] Control efficiency of closed vent-systems installed on a pressure relief device may be lower than other closed-vent systems, because they must be designed to handle both potentially large and small volumes of vapor.

Table 1.2.2-2. Control Effectiveness for a LDAR Program at a SOCMI Process Unit

Equipment type and service	Control effectiveness (%)	
	Monthly monitoring[a] 10,000 ppmv leak definition	HON [b]
Valves - gas	87	92
Valves - light liquid	84	88
Pumps - light liquid	69	75

[a] This format serves as the basis for the 40 CFR Part 60 and Part 61 CAA equipment leak regulations as well as the RCRA Subpart BB rules.

[b] Control effectiveness attributable to the requirements of the hazardous organic NESHAP equipment leak negotiated regulation, 63 CFR Subpart H, are estimated based on equipment-specific leak definitions and performance levels specified in Subpart H.

1.3 Subpart CC–Air Emission Standards for Tanks, Surface Impoundments, and Containers–CAA/RCRA Overlap Provisions

1.3.1 Applicability and Exemptions

In the November 25, 1996, revisions to the Subpart CC rules (61 FR 59932 - 59997), the EPA amended paragraph (b)(7) of §264.1080 and §265.1080 (Applicability) to exempt from the requirements of Subpart CC any "hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with an applicable Clean Air Act (CAA) regulation codified under 40 CFR Part 60, Part 61, or Part 63."

There are three limitations to this applicability exemption that are explained in the preamble to the Subpart CC revisions. First, for a tank that uses an enclosure as a part of the air emission control system rather than the more conventional tank controls involving covers, the enclosure and control device used must comply with the technical requirements for enclosures and combustion devices in §264.1084(i). If this is the case then the unit is exempt from further requirements under the rule. This enclosure/control device limitation does not hold if the tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all the applicable requirements specified under 40 CFR Part 61, Subpart FF—National Emission Standards for Benzene Waste Operations, as is noted directly in paragraph (b)(7) of §264.1080 and §265.1080. These benzene waste tanks are exempt from Subpart CC as long as they meet the Part 61 Subpart FF requirements applicable to the unit.

Second, a unit that does not use the required air emission controls but is in compliance with a NESHAP through an "emission averaging" or "bubbling" provision does not qualify for the exemption; EPA lacks assurance that emissions from the unit are controlled to the extent necessary to protect human health and the environment. An explanation for this limitation was provided in footnote 2 of the preamble at 61 FR 59939, November 25, 1996.

Third, if the Clean Air Act standard for the particular unit requires no control, the exemption from the RCRA standards under §264.1080(b)(7) would not apply since the unit would not actually be equipped and operating air emission controls under provisions of the MACT standard. Again, as stated above, the EPA believes the best way to assure protectiveness under the Subpart CC national rule is to require controls on each particular unit. It is therefore clearly EPA's intent that for a hazardous waste management unit to take advantage of this Subpart CC applicability exemption, the particular unit must be equipped with and operating air emission controls under an applicable CAA regulation.

The EPA further explained in the November 1996 preamble their logic and rationale for including this particular exclusion in the Subpart CC rules. In short, the Agency found that where there are MACT air emission control requirements for a specific unit otherwise covered by Subpart CC, the MACT typically requires the same technical air emission controls as would be required under Subpart CC. Thus, it follows that compliance with the MACT requirements (such that the unit is equipped with and operating air emission controls) would thus afford equal protectiveness as would be achieved under Subpart CC, and therefore can be considered to satisfy the RCRA protectiveness requirements.

1.3.2 Technical Requirements

The technical requirements for the RCRA Air Rules in Subpart CC as amended are essentially the same as those published by the EPA under the CAA section 112 MACT program. A unit controlled under one or the other set of requirements would achieve the same emission reduction and performance level; and the various requirements thus provide the same level of protection. For example, EPA, in promulgating the final requirements for the Off-Site Waste and Recovery Operations NESHAP (61 FR 34147, July 1, 1996), added a series of new subparts to 40 CFR Part 63; these subparts do not apply directly to any particular source category but are referenced by other rules to provide up-to-date consistent technical control requirements (i.e., *standard-standards*). These subparts include Subpart OO--National Emission Standards for Tanks—Level 1, Subpart PP--National Emission Standards for Containers, Subpart QQ--National Emission Standards for Surface Impoundments, Subpart RR--National Emission Standards for Individual Drain Systems, and Subpart VV--National Emission Standards for Oil-Water Separators and Organic-Water

Separators. Additional *standard-standards* were promulgated by the Agency on June 29, 1999 (64 FR 34853-34949) and included Subpart SS--National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process; Subpart TT--National Emission Standards for Equipment Leaks—Control Level 1; Subpart UU--National Emission Standards for Equipment Leaks—Control Level 2; and Subpart WW--National Emission Standards for Storage Vessels (Tanks)—Level 2. In terms of technical control requirements, these CAA standards are essentially identical to the requirements for tanks, containers, and impoundments found in the RCRA Subpart CC rule. Table 1.3.2-1 presents a summary comparison of the technical control requirements for the RCRA Air Rules in Subpart CC and the CAA *Standard-Standards* in 40 CFR part 63.

The differences in the individual rules lies in the fact that each rule has its own criteria to establish which units subject to the rule would be required to install and operate air emission controls. These criteria include such factors as volatile organic HAP concentration, vapor pressure, and tank or container size. Thus, a particular waste managed in a particular tank may require use of air emission controls under one CAA rule but not under another; however, once controls are applied, the resultant emission reduction would be the same regardless of which of the rules required the tank controls.

The regulatory language used in applicability exclusion under §264.1080(b)(7) and §265.1080(b)(7) does not condition the use of the Subpart CC RCRA/CAA overlap exemption on the relative stringency of the CAA rule under which the unit is required to install and operate air emission controls. No mention is made of relative stringency in the rule language. Therefore, the Subpart CC applicability exclusion in paragraph (b)(7) of §264.1080 and §265.1080 does not require that the CAA air emission controls be either equivalent or more stringent than the control device requirements under Subpart CC for the affected waste management unit. Language regarding the relative stringency of the various rules under which a waste management unit could be required to install air emission controls was not considered necessary or meaningful relative to control of these types of waste management units because, as discussed above, the technical requirements for these units are for all practical purposes the same and implementation of the controls results in the same overall level of control performance for the unit. However, the language is quite clear on the fact

that to qualify for this exemption, the unit must indeed be equipped-with and operating air emissions controls under an applicable CAA regulation in 40 CFR Part 60, Part 61, or Part 63.

In order to qualify for the RCRA/CAA overlap exemption, it is not enough that the unit is merely subject to and in compliance with a particular CAA rule (but does not install air emission controls); the waste management unit must be equipped-with and operating air emission controls to comply with the CAA rule provisions relative to the unit. Similarly, the air emission controls must be installed and operated to comply with the requirements of an applicable CAA regulation. Installing air emission controls to comply with a CAA regulation that is not applicable to the waste management unit, as specified in the subpart, is not sufficient to qualify the unit for the RCRA/CAA overlap exemption.

Table 1.3.2-1 Summary of RCRA and CAA Technical Control Requirements for Tanks, Surface Impoundments, and Containers

Waste Management Unit	Technical Control Requirements	
	RCRA Part 264/265	**CAA Part 63**
Tanks - Level 1	**Subpart CC**	**Subpart OO**
	• Fixed roof	• Fixed roof
Tanks - Level 2	**Subpart CC**	**Subpart WW**
	• Fixed roof with internal floating roof	• Fixed roof with internal floating roof
	• External floating roof	• External floating roof
	• Cover and vent to control device	• Equivalent alternative
	• Pressure Tank	
	• Tank enclosure vented to combustion device	
Surface Impoundments	**Subpart CC**	**Subpart QQ**
	• Floating membrane cover	• Floating membrane cover
	• Cover and vent to control device	• Cover and vent to control device
Containers	**Subpart CC**	**Subpart PP**
Level 1	• Meet DOT regulations	• Meet DOT regulations
	• Cover container	• Cover container
	• Organic suppression barrier	• Organic suppression barrier
Level 2	• Meet DOT regulations	• Meet DOT regulations
	• Operate with no detectable emissions (Method 21)	• Operate with no detectable emissions (Method 21)
	• Tested vapor tight (Method 27)	• Tested vapor tight (Method 27)
Level 3	• Enclosure vented to control device	• Enclosure vented to control device
	• Vent container to control device	• Vent container to control device

DOT = U.S. Department of Transportation

2.0 RCRA Air Rules Recordkeeping Requirements for Clean Air Act Exemptions

Documentation is an integral part of the RCRA air emission standards exemptions that are based on compliance with CAA regulations. All three of the RCRA air rule subparts directly refer to documentation of compliance with CAA rules and require that the documentation be kept with, or made readily available with, the facility on-site operating record. Note that "readily available" requires retrieval of information at the regulator's request when, for example, the regulator is scheduled to be on-site.

2.1 Subpart AA–Process Vents

The applicability exemption in §264.1030(e) and §265.1030(d) requires that the documentation of compliance under regulations at 40 CFR Part 60, Part 61, or Part 63 be kept with, or made readily available with, the facility on-site operating record.

2.2 Subpart BB–Equipment Leaks

The recordkeeping compliance alternative in §264.1064(m) and §265.1064(m) requires that the documentation of compliance under regulations at 40 CFR Part 60, Part 61, or Part 63 be kept with or made readily available with the on-site facility operating record.

2.3 Subpart CC–Tanks, Containers, and Surface Impoundments

The recordkeeping provisions of Subpart CC at §264.1089(j) and §265.1090(j) require that the owner or operator of a facility, where a hazardous waste management unit is not using air emission controls in accordance with the applicability exemption specified in §264.1080(b)(7) and §265.1080(b)(7), must record and maintain the following information relevant to the exempt units:

1) certification that the waste management unit is equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 CFR Part 60, Part 61, or Part 63; and
2) identification of the specific requirements codified under 40 CFR Part 60, Part 61, or Part 63 with which the waste management unit is in compliance.

Paragraph (a) of the Recordkeeping requirements (§264.1089 and §265.1090) requires the owner or operator to record and maintain information required by paragraph (j) in the operating record for as long as the waste management unit is exempt from the Subpart CC control requirements in accordance with the conditions specified in §264.1080(b)(7) or the corresponding paragraphs under Part 265.

2.4 Conclusions

Neither the Subpart AA, BB, or CC regulations themselves nor the accompanying preambles provide comprehensive guidance on the level of detail needed to document compliance with the CAA rules and thus qualify for the RCRA air emission standards exemptions. However, it is clear from the preamble discussions contained in the various Federal Register notices adding or amending these Subpart AA, BB, and CC exemptions, that the minimum documentation would include:

- certification by the owner/operator regarding the fact that the unit, process vent, or equipment is in compliance with applicable regulations under Part 60, Part 61, or Part 63 of the CAA;
- ? certification by the owner/operator that the unit, process vent, or equipment is controlled for air emissions either through installation of a control device (for Subpart AA or Subpart CC) or application of an emission control program such as a LDAR program (for Subpart BB) as required under the applicable CAA regulations;
- identification of each unit, process vent, or equipment component for which the exemption is being claimed and the specific requirements under 40 CFR Part 60, Part 61, or Part 63 with which the unit, process vent, or equipment component is subject to and in compliance with; and
- copies of all records and other documentation required specifically by the 40 CFR Part 60, Part 61, or Part 63 regulations to document or demonstrate that the unit, process vent, or equipment component is in compliance through use of the appropriate emission control equipment (e.g., operating permits, engineering design documentation, source tests, inspection reports) or work practices (e.g., monthly LDAR inspection/monitoring records).

It is also important to note that a TSDF owner or operator claiming the RCRA/CAA overlap exemption will need to submit relevant supporting documentation during the (Part 270) RCRA permit process. The RCRA permit writer will need this relevant information for the particular units or equipment involved even though the facility is eligible for the RCRA/CAA overlap exemption as specified in the RCRA air rule provisions. The permit writer must be able to justify and document why the RCRA permit conditions lack any

applicable Subpart AA, BB, or CC related requirements and standards. In addition to verifying the appropriateness of the exemption for the facility, the RCRA permit writer needs the information regarding control of organic air emissions to reference the exemption in the Permit Factsheet, Response to Comments, and possibly in the actual RCRA permit. In general, the information, regarding compliance with any CAA rules that qualifies the unit or equipment for exemption under the RCRA Air Rules, should be included in the facility's Part B RCRA permit application. For example, if the facility's CAA Title V permit (or permit application) contains information specific to the hazardous waste management units or equipment for which the exemption is claimed, the owner or operator should include this information in the documentation sent to the RCRA permit writer to support the exemption based on organic air emission controls required under the CAA. Again, an unsupported claim is not sufficient to warrant or justify the exemption.

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3.0 Summary of Clean Air Act Regulations Applicable to Waste Management Units

The EPA fully recognizes that in developing air standards to meet congressional directives established by provisions in the Clean Air Act and Resource Conservation and Recovery Act, the potential exists for regulatory overlap and that it is the EPA's intention to minimize, if not eliminate, regulatory overlap to the extent that the Agency is allowed under the different legislative acts. Section 1006(b) of RCRA requires that the air standards be consistent with and not duplicative of Clean Air Act standards. Similarly, the Clean Air Act voices a strong preference for consistency in CAA section 112 standards and RCRA standards where practicable (see section 112(n)(7)).

The various EPA regulations in 40 CFR Part 60, Part 61, and Part 63 were reviewed to determine which particular subparts might contain provisions that also apply to hazardous waste management units and associated equipment regulated under the RCRA Air Rules and that require control of organic air emissions from waste management units and equipment components. Clean Air Act regulations that potentially might overlap with RCRA Subparts AA, BB, and CC in 40 CFR Part 264 and Part 265 include those listed in Table 3.0-1. This table is not intended to be exhaustive but rather provides a guide for readers regarding which CAA regulations are likely to overlap the RCRA Air Rules.

Table 3.0-1. Summary of CAA Regulations Potentially Applicable to Waste Management Units.

Regulatory Title	40 CFR Part No.	Subpart	Type of Units Regulated	Comments
Part 63				
National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations	Part 63 §63.680 — §63.697	Subpart DD	Process vents, equipment components (e.g., pumps and valves), tanks, surface impoundments, containers, individual drain systems, oil-water separators	Control requirements reference "Standard Standards" in Subparts OO, PP, QQ, RR, and VV
National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater (a.k.a. "the HON")	Part 63 §63.110 — §63.152	Subpart G	Wastewater tanks, surface impoundments, containers, individual drain systems, oil/water separators, treatment units (i.e., steam strippers, bio-units, etc.)	This rule is referenced by a number of Part 63 standards for technical control requirements.
National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks	Part 63 §63.160 — §63.182	Subpart H	Equipment components (e.g., pumps and valves)	
National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks	Part 63 §63.190 — §63.193	Subpart I	Equipment components (e.g., pumps and valves)	References subpart H of 40 CFR Part 63 for technical standards .

Table 3.0-1 (Continued)

Regulatory Title	40 CFR Part No.	Subpart	Type of Units Regulated	Comments
Part 63 Standard Standards:	Part 63	See below	See below	These standards do not apply directly to any particular source category but are referenced by other rules to provide technical control requirements.
• National Emission Standards for Tanks-Level 1	§63.900 — §63.907	Subpart OO	Fixed-roof tanks	
• National Emission Standards for Containers	§63.920 — §63.928	Subpart PP	Containers	
• National Emission Standards for Surface Impoundments	§63.940 — §63.948	Subpart QQ	Surface impoundments	
• National Emission Standards for Individual Drain Systems	§63.960 — §63.966	Subpart RR	Drains, sewer lines, junction boxes, etc.	
• National Emission Standards for Oil-Water Separators and Organic-Water Separators	§63.1040 — §63.1049	Subpart VV	Oil/organic - Water Separators	
• National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process	§63.980 — §63.999	Subpart SS	Process vents and closed-vent systems	
• National Emission Standards for Equipment Leaks — Control Level 1	§63.1000 — §63.1018	Subpart TT	Equipment components (e.g., pumps and valves)	

Table 3.0-1 (Continued)

Regulatory Title	40 CFR Part No.	Subpart	Type of Units Regulated	Comments
• National Emission Standards for Equipment Leaks — Control Level 2	§63.1019 — §63.1039	Subpart UU	Equipment components (e.g., pumps and valves)	
• National Emission Standards for Storage Vessels (Tanks) — control Level 2	§63.1060 — §63.1066	Subpart WW	Fixed-roof, floating-roof, pressure, and other tanks	
Part 60				
Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry	Part 60 §60.480 -- §60.489	Subpart VV	Equipment Components (e.g., pumps and valves)	
Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries	Part 60 §60.590 -- §60.593	Subpart GGG	Equipment Components (e.g., pumps and valves)	References Subpart VV of 40 CFR Part 60 for technical standards.
Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems	Part 60 §60.690 — §60.699	Subpart QQQ	Individual drain systems and oil-water separators	
Standards of Performance for VOC Emissions from SOCMI Wastewater (Proposed only)	Part 60 §60.770 — §60..789	Subpart YYY	Tanks, surface impoundments, containers, individual drain systems, oil-water separators	Proposed regulation contains provisions addressing "Relationship to RCRA" rules (63 FR 68049); i.e., comply with more stringent requirements or request case-by-case determination of requirements. Control requirements reference various Part 60, 61, 63, 264, and 265 rules

Table 3.0-1 (Continued)

Regulatory Title	40 CFR Part No.	Subpart	Type of Units Regulated	Comments
Part 61				
National Emission Standard for Equipment Leaks of Benzene	Part 61 §61.110 — §61.112	Subpart J	Equipment Components (e.g., pumps and valves)	References Subpart V of 40 CFR Part 61 for technical standards. Over-rides 40 CFR Part 60 rules.
National Emission Standard for Equipment Leaks	Part 61 §61.240 — §61.247	Subpart V	Equipment Components (e.g., pumps and valves)	Over-rides 40 CFR Part 60 rules.
National Emission Standard for Benzene Waste Operations	Part 61 §61.340 — §61.358	Subpart FF	Tanks, surface impoundments, containers, individual drain systems, oil-water separators	Applies to chemical manufacturing plants, coke by-product plants, and petroleum refineries; the rule also applies to hazardous waste which includes any TSDF that manages waste generated by any of these facility types.

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4.0 Clean Air Act Enforceablility and Operating Permit Considerations

One of the more relevant issues associated with the RCRA/CAA overlap provisions is the general question on how the RCRA permit writer will confirm that hazardous waste treatment units, equipment, and vents potentially subject to RCRA Organic Air Emission Standards (40 CFR 264, Subparts AA, BB, and CC) are also subject to CAA regulations under Part 60, 61, or 63 and that all requirements under the CAA rules are met for these units, equipment, or vents. The discussion below addresses this point and is presented based on the situation where a facility is either with or without a CAA Title V operating permit.

4.1 Facilities With An Operating Permit

EPA rules for State CAA operating permit programs (40 CFR Part 70) require an operating permit for each facility that is a major source as defined in 40 CFR 70.2. According to the EPA's Operating Permits Group of the OAQPS Information Transfer and Program Integration Division, an operating permit for a major source must be comprehensive with respect to including all emission units and all applicable requirements that apply to the units (see 40 CFR 70.3(c)(1)). That is, for major sources, the CAA permit must include all "applicable requirements" for all emission units within the fenceline (except for "insignificant activities") and contain an explanation of any exemptions from otherwise "applicable requirements." An "applicable requirement" is essentially all emission limitations and standards and other requirements through State implementation plans (SIP), NSPS, MACT, NESHAP, and other CAA requirements. For example, the RCRA air emission standards are not an "applicable requirement" under Title V because they are not CAA requirements (RCRA is a separate statute). The CAA standards under Part 60, 61, or 63 are applicable requirements and as such should be included in the CAA Title V operating permit, as applicable to the facility. All terms and conditions in the permit that are required by the CAA or applicable requirements are federally-enforceable. In fact, all Federally-approved rules/requirements are independently enforceable outside of CAA permitting programs. For example, State Implementation Plan (SIP) requirements become

federally-enforceable when EPA approves the SIP. NSPS, MACT, and NESHAP are federally-enforceable as of their effective date and remain federally enforceable even if the program is delegated to a state or local agency. Therefore, CAA requirements under 40 CFR Parts 60, 61, or 63 are independently enforceable regardless of whether or not the requirements have been incorporated into the facility's Title V permit. An owner or operator with sources subject to regulations under 40 CFR Part 60, 61, or 63 must comply with the applicable requirements of these regulations regardless of the CAA Title V permit status.

The requirements for permit content are described in 40 CFR 70.6. Each permit must include the emission limits and standards including operational requirements and limits that assure compliance with all applicable requirements at the time of permit issuance. All the terms and conditions of the permit , including any "permit shield" granted under 40 CFR 70.6(f), remain in effect until the renewal permit has been issued or denied. The operating permit term is 5 years.

Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action. Section 70.6(f) allows the permitting authority to include a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided: (1) such applicable requirements are included and specifically identified in the permit; or (2) the permitting authority determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary of it. This means, in general, that once the applicable requirement is translated into permit terms, the source only must comply with the Title V permit terms. There also are limitations to the provisions that can be "shielded." For example, neither non-compliance nor terms that have not undergone EPA and public review can be shielded by a CAA Title V permit.

The concept of "permit shield" under the CAA is significantly different than the "permit-as-a-shield" practice under RCRA which allows permitted TSDF to be shielded from compliance with regulatory requirements promulgated after the RCRA permit is issued; i.e., compliance with the RCRA permit constitutes compliance with the RCRA program. In general, under this practice, if a new regulation in 40 CFR Part 264 is not in the facility's RCRA permit, the owner or operator is typically not required to comply with that particular rule. This is not the case under the CAA where "shielded" requirements must be specifically identified in the Title V permit. The CAA requires that the permit must be reopened to include newly promulgated requirements if more than 3 years remain in the

term of the permit. If not, the requirements are included in the permit renewal. In either case, the facility owner or operator must comply with any new regulations under 40 CFR Part 60, 61, or 63, which are independently enforceable, as of their effective date.

There are circumstances where a particular unit or source may not be included or listed in a facility's Title V permit. For example, an emissions unit may not be listed in the permit for a major source if it constitutes an "insignificant activity." State permitting programs have varying definitions of "insignificant activity." Some use a emissions threshold for HAPs (e.g., 2 tpy) and such limits should only be subject to generally applicable requirements of the SIP. Portable units moved onto the site for a short period of time also may not be listed in the permit for a major source. A portable source cannot be a major source. In cases where a particular unit or source is not included or listed in a facility's Title V permit, the unit is not exempt from any applicable CAA requirements under Sections 111 and 112. As this discussion illustrates, in limited cases a HWMU at a facility could be subject to and in compliance with a particular CAA rule but the facility's Title V permit may not clearly identify or list the applicability of the rule.

For a CAA source (either major or non-major) with an operating permit, there are many ways to confirm that a particular unit or piece of equipment is subject to a specific CAA rule and that all CAA requirements imposed by the rule are being met (i.e., in this case, that air emission controls are installed and operating). Foremost among these is the fact that (1) many permitted facilities subject to CAA rules (i.e., NSPS, NESHAP, and MACT) must submit an initial notification of applicability, a notification of compliance status, and annual compliance certifications (these go to the permitting authority and EPA), and must submit excess emission reports and other reports as may be required by the particular CAA rule; (2) the EPA also has authority to make inspections and request information needed to determine compliance under Section 114 of the CAA; and (3) the CAA regulations may include recordkeeping and reporting requirements for units that are below the applicability threshold for the standard but they require the "exempt" units to document the continuing non-applicability of the requirements. The recordkeeping requirements are included in the Title V permit and the exempt units should be noted as exempt in the permit; the records should also be available for EPA inspection.

Where would a RCRA permit writer, inspector, or program staffer find the CAA files on a facility subject to TSDF air rules? According to the OAQPS Operating Permits Group (OPG) Information Transfer and Program Integration Division, the CAA permit rules in 40 CFR part 70 require that the permitting authority provide the Administrator (i.e., the Regional Office) a copy of each permit application, proposed permit, and final permit. The

format (paper or electronic) and extent (all supporting documentation like test reports) may vary from State to State. Full copies of everything must be held at the State level. This would include the CAA permit and all supporting documentation (e.g., notifications, emission estimates, test reports, and monitoring reports). Depending on the information sought to confirm applicability and compliance with CAA regulations, it might be helpful to first review compliance certifications and compliance schedules for the facility that are included in the permit and semiannual reports which should be available in the CAA operating permit file at both the State and EPA Regional office. An alternative is to look at the facility's semi-annual report that would indicate compliance with each applicable provision. The EPA first contact for this information should be the CAA Title V Program Manager for EPA Region office.

4.2 Facilities Without an Operating Permit

As discussed in earlier sections, there is a population of non-major sources that are not currently in the CAA Title V permitting universe due to deferrals that are expected to continue for the next few years. These facilities may nonetheless contain units that are subject to and in compliance with CAA regulations under 40 CFR Part 60, 61, or 63 as well as being potentially subject to the RCRA Air Rules in Subpart AA, BB or CC. While EPA has deferred CAA permit requirements for non-major sources, the NSPS, MACT, and NESHAP requirements that apply to these facilities are federally-approved rules and, as such, they are independently enforceable. Therefore, an owner or operator with sources subject to regulations under 40 CFR Part 60, 61, or 63 must comply with the applicable requirements of these regulations regardless of the CAA Title V permit status.

It is also of interest to note that when a permit is issued for any non-major source (including an area source) under the CAA Part 70 program, those units that are subject to NSPS, NESHAP, and MACT rules must be included in the permit for the non-major source; all applicable requirements under the rules must be included for these units. (See 40 CFR 70.3.)

For a CAA non-major source without a Title V operating permit, there also are ways to confirm that a particular unit or piece of equipment is subject to a specific CAA rule and that all CAA requirements imposed by the rule are being met (i.e., that air emission controls are installed and operating). Again, the most direct among these is the fact that under most CAA NSPS, NESHAP, and MACT regulations, facilities must submit an initial notification of applicability, a notification of compliance status, and must routinely submit excess emission reports and other reports as may be required by the particular CAA rule. These

reports provide a sound basis for making the determination regarding CAA rule emission controls and compliance relative to the RCRA air rule exemptions.

It should be pointed out that in general there is less assurance of continuous compliance with CAA rules at a facility with no operating permit. Compliance with the individual rules is typically assessed by inspections and EPA review of reports required by the CAA rules. EPA authority under section 114 also can be used to collect additional information needed to assess compliance.

4.3 Conclusions

Based on the above discussion, it appears that there are situations where either a facility may not have a CAA operating permit or their permit does not include all units and yet the owner/operator has installed and is operating air emission controls on a unit because of applicable CAA rules under 40 CFR Part 60, 61, or 63. Therefore, it does not seem reasonable that the RCRA air rule exemptions or exclusions included in Subparts AA, BB, and CC for CAA rule controls should not be considered or allowed merely on the grounds that the applicable CAA rule requiring installation and operation of emission controls is not incorporated into the facility's CAA Title V operating permit. The key point that must be considered under the RCRA air rule provisions for the exemption or exclusion is that the potentially affected unit must be equipped with and operating air emission controls in accordance with an applicable CAA regulation codified in 40 CFR Part 60, 61, or 63; and that this fact must be adequately documented by the owner/operator as required in the RCRA air rule provisions relevant to the RCRA/CAA overlap exemption.