



**Colorado Department
of Public Health
and Environment**

HAZARDOUS WASTE GUIDANCE

**SATELLITE ACCUMULATION
for
SMALL and LARGE QUANTITY GENERATORS
of
HAZARDOUS WASTE**

All regulatory requirements provided in this guidance are from The Colorado Hazardous Waste Regulations found at 6 CCR 1007-3, and may be paraphrased to emphasize the requirements specific to the topics of this guidance document.

February 1998

Purpose of this Guidance

This is intended as general guidance for generators of hazardous waste and is meant to assist in compliance with the hazardous waste regulations. The guidance is not meant to modify or replace the promulgated regulations which undergo periodic revisions. In the event of a conflict between this guidance and promulgated regulations, the regulations govern. Some portions of the hazardous waste regulations are complex and this guidance does not go into the details of these complex situations. If a regulatory situation is not described in the guidance or clarification is desired, an official interpretation of a specific hazardous waste regulation can be requested by writing to the Hazardous Materials and Waste Management Division at the address on page 11.

We would appreciate any comments or suggestion for making improvements in future editions. Suggestions or comments can be sent to the address on page 11. Important phone numbers are also provided on page 11.

(This document has been reformatted to improve accessibility in Portable Document Format (PDF). No other changes were made unless specifically noted.)

SATELLITE ACCUMULATION AREAS and the SMALL QUANTITY GENERATOR

This document concentrates on the requirements for large quantity generators regarding satellite accumulation of hazardous waste. Section 262.34(g) of the hazardous waste regulations specifies the requirements for small quantity generators regarding satellite accumulation of hazardous waste. The requirements and their interpretations for a small quantity generator of hazardous waste are identical to those for large quantity generators detailed in this document, with the following exceptions:

1. According to Section 262.34(g)(iii), a small quantity generator accumulating waste in satellite areas does not have to maintain a contingency plan or comply with the training requirements of Section 265.16. Instead, such a generator must comply with Part 265, Subpart C (Preparedness and Prevention) and with the training requirements of 262.34(d).
2. Since small quantity generators are not required to maintain contingency plans, the requirement to record locations of satellite accumulation containers in the contingency plan does not apply to them.
3. Once waste located in a satellite accumulation area exceeds the 55 gallon level (non-acutely hazardous waste) or 1 quart level (acutely hazardous waste), a small quantity generator must comply with the requirements of Section 262.34(d) the generator requirements for the small quantity generator (as apposed to Section 262.34(a) for large quantity generators).

SATELLITE ACCUMULATION AREAS

I. Regulatory Requirement - Section 262.34(c)(1)

“A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in Section 261.33(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with paragraph (a) of this section provided...”

Interpretive Guidance: 55-gallon and one-quart volume limit

The 55-gallon/one-quart limit applies to the total amount of waste in a satellite accumulation area, not per waste stream or waste type. A facility may accumulate waste in several small containers adding up to the 55-gallon/one-quart limit. Each satellite area may be used to accumulate not over 55 gallons of hazardous waste or one quart of acutely hazardous waste; however, a generator may elect to place more than one satellite area in the same location. This may be done as long as the areas are managed independently and all satellite accumulation requirements are followed.

Interpretive Guidance: Waste generating process

There are several ways to define what constitutes a waste-generating process and it is up to the generator to define their processes. For example, consider a car manufacturer which has one large painting room with several painting lines (hood painting, side panel painting, interior painting, etc.). The entire painting room could be defined as one process, or each painting line could be defined as a separate process. The manufacturer has the option of declaring one satellite area for the entire room or several satellite areas, one for each individual painting line.

Another example could be a facility generating hazardous waste in a research organic chemistry laboratory. All organic chemistry processes taking place in a single room could be considered one process, or the facility may elect to call each instrument or researcher a single waste-generating process. In some circumstances a single process may generate more than one waste stream and the assignment of more than one satellite area may be justified based on the nature and definition of the process, and the types and volume of waste generated.

It is the responsibility of the generator to justify the definition of processes and the assignment of satellite areas based on the primary intention of satellite accumulation — to facilitate the accumulation of low generation-rate wastes, not to extend the accumulation time.

Interpretive Guidance: At or near the point of generation

At or near the point of generation means the precise location where the waste is generated or near enough to that location such that there are no other areas, processes, equipment,

employees, etc., which might interfere with the transportation of the waste to the satellite area.

Examples of situations which may interfere with the transportation of waste include: flights of stairs, parking lots, security systems, frequent foot traffic, elevators, other hazardous waste or chemical storage areas, restrictive passageways, and manufacturing areas. Near the process generating the waste may include a clean-room situation where there is a pass-through from the room generating the waste to the satellite area immediately through a window.

There are special situations where locating the waste at or near the point of generation is impractical. And other situations where it may be just as easy to take the waste to a 90-day accumulation area. Under these circumstances, contact CDPHE for further guidance if necessary.

Interpretive Guidance: Under the control of the operator

Hazardous waste in a satellite area must be under the control of the operator of the process generating the waste. The operator may be everyone creating the waste or just the supervisor. A process operator who maintains visual contact with their waste container in the satellite accumulation area during their work shift has the waste under their control. If visual contact is not possible, the satellite accumulation container may be locked with the process operator maintaining the key to assure that the area is under the control of the operator of the process and to limit unauthorized access to the waste.

Interpretive Guidance: In-process waste

In-process waste does not need to be managed as a satellite accumulation area. In-process waste refers to waste that is continuously generated and is an integral part of the system generating the waste, or waste that is accumulated during a process and is moved to a satellite-accumulation or 90-day area at the end of a work shift.

For example, consider a machine shop which grinds metals parts on a lathe. The lathe includes a recirculating solvent cleaning bath which is an attached, hard-plumbed integral part of the system. The waste generated by this system is considered in-process. Once the cleaning bath is removed from the lathe, the waste solvent must be moved to a satellite-accumulation or 90-day area.

Another example could be a container for waste generated by a High Pressure Liquid Chromatograph (HPLC) which is physically connected to the HPLC. Once the container is full and/or removed or disconnected from the HPLC, the waste must be moved to a satellite-accumulation or 90-day area.

A third example of accumulating waste during a process could be a group of six employees working at the same bench, cleaning equipment with listed solvents on a Q-tip. Each employee has a one-gallon collection container for used Q-tips at their work station. At the end of the work shift, the employees consolidate their one-gallon

containers in a 55-gallon container located at the end of the work bench. In this example, the one-gallon containers are considered a collection point for in-process waste and the 55-gallon container is considered a satellite accumulation area. “Integral to the process” is the primary condition for in-process waste, and may include a hard-plumbed container or other physical connection; however, physical connection is not a required condition (see above Q-tip example).

II. Regulatory Requirement - Section 262.34(c)(1)(I)

“The waste is placed in containers and the generator complies with Subpart I of Part 265 (*Use and Management of Containers*) of these regulations except for Section 265.178;”

II.a. Regulatory Requirement - Subpart I Section 265.171 — Condition of Containers

“If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of this part.”

Interpretive Guidance: Container in good condition

A container is defined in Section 260.10 as any portable device in which a material is stored, transported, treated, disposed, or otherwise handled. A container in good condition means that it is not leaking, bulging, rusting, dented, cracked, etc.

II.b. Regulatory Requirement - Subpart I Section 265.172 — Compatibility of Waste with Container

“The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain waste is not impaired.”

II.c. Regulatory Requirement - Subpart I Section 265.173 — Management of Containers

“(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.”

Interpretive Guidance: Closed container

There are several options a facility can use to meet the requirements of a closed container depending on where the container is located, what is in the container, and what fire codes may apply. For example, funnels with flip-top lids may be appropriate if the container is located in an area where there is little chance of it tipping over. A can with a flip-top lid may be appropriate in a situation where the waste being stored is not liquid (rags, batteries, aerosol cans, etc.). It is the facility’s responsibility to determine what is a safe storage situation. It is likely that most facilities will have case specific circumstances to factor in when making this determination.

Interpretive Guidance: Adding or removing waste

During the time when waste is being added or removed from a satellite container, the lid may be opened. However, after the waste is added or removed the lid must be on the container.

II.d. Regulatory Requirement - Subpart I Section 265.174 — Inspections

“The owner or operator must inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors.”

Interpretive Guidance: Documentation of weekly

The facility is responsible to ensure that an inspection is conducted on satellite areas at some time during the week that there is waste being accumulated in the area. It is suggested that a facility document the weekly inspection of satellite areas. A facility may do this in several ways. For example, a facility may document the exact date of inspection or document that the inspection was performed during the “week of June 7.”

II.e. Regulatory Requirement - Subpart I Section 265.176 — Special Requirements for Ignitable or Reactive Waste

“Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility’s property line.”

II.f. Regulatory Requirement - Subpart I Section 265.177 — Special Requirements for Incompatible Wastes

“(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same container, unless Section 265.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed container that previously held and incompatible waste or material (see Appendix V for examples), unless Section 265.17(b) is complied with.

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall or other device.”

III. Regulatory Requirement - Section 262.34(c)(1)(ii)

“While being accumulated, the containers are marked with the words “Hazardous Waste” or with other words that identify the contents of the containers; and”

Interpretive Guidance: Marking of containers

A facility can mark containers in several ways, by using pre-printed labels or marking the words “Hazardous Waste” or the identity of the contents of the container directly on the container. It is recommended to include the word “Waste” in all cases to differentiate a

hazardous waste container from a product container (e.g., “Waste Solvent” as opposed to “Solvent”).

IV. Regulatory Requirement - Section 262.34(c)(1)(iii)

“The generator complies with the requirement for owners or operators in Subpart C and D in Part 265 and with Section 265.16; and”

Interpretive Guidance –See guidance documents “Preparedness and Prevention / Contingency Plan / Emergency Procedures for Large Quantity Generators” and “Personnel Training for Large Quantity Generators” for additional interpretive guidance.

Part 265 Subpart C - Preparedness and Prevention

The preparedness and prevention regulations include provisions for:

- the safe maintenance and operation of the facility;
- availability of emergency equipment;
- the testing and maintenance of emergency equipment;
- access to communications or alarm systems;
- adequate aisle space; and
- arrangements with local authorities for emergency response.

Part 265 Subpart D - Contingency Plan and Emergency Procedures

The contingency plan and emergency procedures regulations include provisions for:

- implementation of the contingency plan;
- the content of the contingency plan;
- distribution of copies of the contingency plan;
- amendments to the contingency plan;
- duties of the emergency response coordinator; and
- emergency procedures.

Part 265 Section 265.16 - Personnel Training

Facility personnel utilizing satellite accumulation areas must successfully complete a program of classroom instruction and on-the-job training.

V. Regulatory Requirement - Section 264.34(c)(1)(iv)

“The generator designates the location of each paragraph (a) and (c)(1) accumulation area (*90 day and satellite accumulation areas*) in the contingency plan required under Section 262.34(c)(1)(iii).”

Interpretive Guidance: Designation of areas

How areas are designated is at the discretion of the generator, as long as all conditions for satellite accumulation are met. An entire room may be designated as one area, or there may be several areas within one room. Please refer to the guidance for the 55-gallon limit and waste generating process under Section I above for further explanation.

Interpretive Guidance: Documentation in the contingency plan

The generator must document the location of all satellite and 90-day accumulation areas in its contingency plan. The generator may locate the satellite areas on a facility map, or simply list the area or number of areas by location. For example:

LOCATION OF SATELLITE AREAS

Room 32A - 3 areas

Room 11- 1 area

Room 43 - 2 areas

In the case of temporary satellite areas, the generator may choose to keep two satellite area lists; one list to designate permanent areas and one list to designate temporary areas. Using this method of documentation allows the generator to change the location of temporary areas as needed without revising an entire list.

VI. Regulatory Requirement - Section 262.34(c)(2)

“A generator who accumulates either hazardous waste or acutely hazardous waste listed in paragraph (c)(1) of this section at or near any point of generation must comply immediately when the level of 55 gallons of hazardous waste or one quart of acutely hazardous waste is exceeded with paragraph (a) of this section or other applicable provisions of these regulations.”

Interpretive Guidance: Immediate compliance with 262.34(a)

Generators who accumulate hazardous waste in satellite accumulation areas must comply with the requirements for 90-day storage areas immediately when the 55-gallon limit for hazardous waste or one-quart limit for acutely hazardous waste is exceeded. These requirements include labeling the hazardous waste container with an accumulation start date and the words “Hazardous Waste.” The accumulation start date is the date that a satellite accumulation area exceeds its 55-gallon or one-quart limit.

It is often difficult for generators to immediately move a satellite accumulation container to a 90-day storage area once the 55-gallon or one-quart limit is exceeded. Since this may be the case, the Division will consider generators who move containers from a satellite accumulation area to a 90-day storage area within 24 hours to be in compliance with the requirement. Generators must still comply with the labeling requirements and other requirements for 90-day storage areas immediately (within moments) upon exceeding the 55-gallon or one-quart limit at a satellite area.

In the special circumstances where a satellite accumulation container is filled (55 gallons of hazardous waste or one quart of acutely hazardous waste) at the end of a shift before a weekend or holiday, and there will be no environmental staff working over that weekend or holiday, the container must be moved to a 90-day storage area by the end of the next

business day. However, generators must still label the container with the words “Hazardous Waste” and an accumulation start date immediately (within moments). In the case where an operation will cease, and not be resumed on the next business day, the container must be labeled and moved immediately.

REGULATORY COMPARISON

Areas where Colorado Hazardous Waste Regulations are more stringent than federal requirements related to satellite accumulation:

1. In Colorado, the requirements for 90-day accumulation must be met immediately (within 24 hours) when the 55-gallon limit for hazardous waste or the one-quart limit for acutely hazardous waste is exceeded. See 6 CCR 1007-3 Section 262.34(c)(2).
2. In Colorado, weekly inspections are required for satellite accumulation areas. See 6 CCR 1007-3 Section 262.34(c)(1)(I) and Section 265.174.
3. In Colorado, there are special requirements for ignitable or reactive waste accumulated in satellite areas. See 6 CCR 1007-3 Section 262.34(c)(1)(I) and Section 265.176.
4. In Colorado, there are special requirements for incompatible wastes being accumulated in satellite areas. See 6 CCR 1007-3 Section 262.34(c)(1)(I) and Section 265.177.
5. In Colorado, there are special requirements to protect against containers rupturing or leaking. See 6 CCR 1007-3 Section 262.34(c)(1)(I) and Section 265.173(b).
6. In Colorado, large quantity generators must designate all satellite and 90-day accumulation areas in the facility contingency plan. See 6 CCR 1007-3 Section 262.34(c)(1)(iv).

PHONE NUMBERS

24-hour Emergency Response Line (toll-free)	(877) 518-5608
Colorado Department of Public Health and Environment	(303) 692-2000
Pollution Prevention Program	(303) 692-2977
Hazardous Materials and Waste Management Division	(303) 692-3300
(HMWMD) toll-free	(888) 569-1831
HMWMD Technical Assistance Line	(303) 692-3320
toll-free	(888) 569-1831 ext. 3320

HMWMD Website

<http://www.cdphe.state.co.us/hm/>

HMWMD Internet e-mail

comments.hmwmd@state.co.us

Send questions in writing to:

Colorado Department of Public Health and Environment
Hazardous Materials and Waste Management Division
HMWMD-B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

or FAX (303) 759-5355