Large quantity generators of hazardous waste can accumulate up to 55 gallons of non-acutely hazardous waste or up to one quart of acutely hazardous waste in containers at or near the point of generation provided the hazardous waste is under the control of the operator (Section 262.34(c) of the Colorado Hazardous Waste Regulations 6 CCR 1007-3). Waste stored in a satellite accumulation area must be stored in containers that are in good condition, kept closed, compatible with the waste, labeled appropriately, and inspected weekly. When the 55-gallon limit of non-acutely hazardous waste or one quart limit of acutely hazardous waste is exceeded, the large quantity generator must immediately comply with the requirements for 90-day accumulation areas and move the container(s) to the 90-day accumulation area.

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. Per waste stream or waste type refers to individual waste streams or waste types with an individual point of generation. Individual waste streams or waste types include wastes that have different chemical or physical properties from one another, wastes from different waste generating processes, and the same type of waste that is generated at different points during the process or at different process locations.

Your facility may accumulate waste in several small containers adding up to the 55-gallon/one quart limit, but each satellite accumulation area may be used to accumulate no more than 55 gallons of non-acutely hazardous waste or one quart of acutely hazardous waste. A generator may elect to place more than one satellite accumulation area in the same location for individual waste streams or waste types as long as the areas are managed independently and all satellite accumulation area requirements are followed.

Waste Generating Process

A waste generating process is a unique, distinguishable activity generating a separate waste. 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 an analytical chemistry laboratory. All analytical chemistry processes taking place in a single room could be considered one process, or the facility may elect to call each instrument or researcher generating hazardous waste a single waste-generating process. Some laboratory processes require the use of small autosampler vials containing solvents. The laboratory may accumulate the used vials from more than one instrument in a single container and manage that container as a satellite accumulation container. In other situations, 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.

"At or Near" the Point of Generation

"At or near" the point of generation means the precise location where the hazardous waste is first 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. This generally means within the same room where the waste was generated. Although there is no designated distance from the point of generation to the satellite accumulation area, nothing should interfere with the transfer of hazardous waste to the satellite area. Examples of situations which may interfere with the transportation of waste include: flights of stairs, separate rooms, parking lots, security systems, frequent foot traffic, elevators, other hazardous waste or chemical storage areas, restrictive passageways, manufacturing areas, or physical distance.

Your facility may have special situations where locating the waste at or near the point of generation is impractical. This could include instances such as a satellite accumulation area maintained outside a clean-room production area for quality control purposes or placing the satellite accumulation area immediately outside an enclosed paint booth area for safety reasons. Contact the Hazardous Materials and Waste Management Division for guidance under these types of circumstances.

Under the Control of the Operator

The satellite accumulation area must be under the control of the operator of the equipment or process generating the waste. The operator may include several different individuals generating the waste or just one individual. An 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 in a cabinet that is compatible with the type of waste or a locked room with the operator maintaining the key to assure that the area is under the control of the operator and to limit unauthorized access to the waste.

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 accumulation area at the end of a work shift. "Integral to the process" is the primary condition for in-process waste, and may include a hard-piped container or other physical connection. However, physical connection is not a required condition.

Examples of in-process waste scenarios include:

- A machine shop which grinds metals parts on a lathe. The lathe includes a recirculating solvent cleaning bath which is an attached, hard-piped 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 accumulation area.
- 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 accumulation area.
- A group of employees working at the same bench cleaning equipment with listed solvents on a cotton swab. Each employee has a one gallon collection container for used cotton swabs at their work station. At the end of the work shift, the employees consolidate their one gallon containers of used cotton swabs 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. If the one gallon containers are not moved to the satellite accumulation area by the end of the shift, each initial one gallon container becomes subject to the satellite accumulation area requirements.

Containers

Condition
Satellite accumulation waste must be stored in a container (any portable device in which a material can be stored, transported, treated, disposed, or otherwise handled) that is in good condition. A container that is bulging, severely dented, rusted, cracked, or leaking would not be considered a container in good condition. Satellite accumulation containers must be handled, stored, and managed properly to prevent possible ruptures, leaks, or releases.

Compatible
Satellite accumulation containers must be made of or lined with materials that are compatible with and will not react with the waste to be stored in the container. For example, a highly corrosive hazardous waste, such as nitric acid, is incompatible with a steel drum because the acid reacts with the steel.

Incompatible wastes must not be placed in the same container, or placed in an unwashed container containing residues that may be incompatible with the waste being stored. Satellite accumulation containers holding hazardous waste that is incompatible with any waste or other material stored nearby in other containers, tanks or storage devices must be segregated from the other materials by a dike, berm, wall, or other mechanism.

Closed
Containers must be kept closed at all times, except when hazardous waste is added or removed from the container. After waste is added or removed from the container, the container lid must be closed immediately.

Examples of when a container is considered closed:

- The waste is a solid hazardous waste and there is a lid on the container.

- The waste is a liquid hazardous waste that is stored in a container with a closed screw top lid.
- The waste is a liquid hazardous waste that is stored in a closed head drum with closed bung hole openings.
- The waste is a liquid hazardous waste that is stored in a closed head drum with closed bung hole openings except there is a funnel with a lid that is securely fastened into one of the bung hole openings. The funnel lid must be closed immediately after waste is added. (See the BMPs note[1] below about prevention of accidental hazardous waste spillage when using funnels.)
- The waste is a liquid hazardous waste that is stored in an open head drum with a ring and bolt securing the drum's lid to the container. If present, bung hole openings are closed.
- The waste is a liquid hazardous waste that is stored in an open head drum with a ring and bolt securing the drum's lid to the container and there is a funnel with a lid that is securely fastened into the bung hole opening. If present, other bung hole openings are closed. The funnel lid must be closed immediately after waste is added. (See the BMPs note[1] below about prevention of accidental hazardous waste spillage when using funnels.)

[1]**BMPs Note:** Best Management Practices (BMPs) can be used to prevent accidental hazardous waste spillage when using funnels attached to drums or containers. BMPs include utilizing a flip-top funnel lid that is spring loaded so the lid closes after waste is added, a funnel lid with a latch that latches onto the funnel, securing the drum with a chain or strap to the wall, or using other techniques to prevent the drum from overturning.

Labeled
Satellite accumulation containers must be marked or labeled with wording that identifies the contents of the container. Marking or labeling the container as "Hazardous Waste" or "Satellite Accumulation Hazardous Waste" is acceptable. It is also acceptable to use other identifying words when marking or labeling a satellite accumulation container such as "Waste Solvent," "Acid Waste," or "Lab Waste." 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").

Keep in mind that containers that are being managed in a satellite accumulation area must be marked immediately (within minutes) with the words "Hazardous Waste" and the accumulation start date when the 55-gallon/one quart limit is exceeded. The accumulation start date is the date that a satellite accumulation area exceeds its 55-gallon or one quart limit.

Inspections
Your facility is responsible for ensuring that weekly inspections are conducted on all areas where satellite accumulation containers are stored. Each satellite accumulation container must be inspected at some time during each week for signs of container deterioration and leakage, compatibility with the hazardous waste stored inside the container, that the container is in overall good condition and properly maintained, and that the container is labeled and closed appropriately. Problems revealed during the weekly inspection must be corrected on a schedule which ensures that the problem does not lead to an environmental or human health hazard. If there is an imminent hazard or a hazard has already occurred, remedial action must be taken immediately.

It is suggested that your facility document the weekly inspection of satellite accumulation areas. Documentation of these inspections can be done in several ways including keeping a log which includes the date of the inspection, who performed the inspection, what satellite accumulation containers were inspected, the results of the inspection (e.g. container not labeled), and how any deficiencies were remedied (e.g. labeled an unlabeled satellite accumulation container "Hazardous Waste"). An example inspection checklist and log sheet are provided at the end of this guidance.

Exceed 55-Gallon or One Quart Limit

Your facility must comply with the requirements for 90-day accumulation areas immediately when the 55-gallon limit for non-acutely hazardous waste or one quart limit for acutely hazardous waste is exceeded. These requirements include labeling the hazardous waste container with the accumulation start date and the words "Hazardous Waste" as soon as possible (within a few minutes) of exceeding one of these limits. The accumulation start date is the date that the limit was exceeded.

Satellite accumulation container(s) must be moved immediately from the satellite accumulation area to the 90-day accumulation area once the 55-gallon limit for non-acutely hazardous waste or one quart limit for acutely hazardous waste is exceeded. However, it is often difficult for generators to "immediately" move containers from the satellite accumulation area to a 90-day accumulation area. Since this may be the case, the Hazardous Materials and Waste Management Division will consider generators who move containers from a satellite accumulation area to a 90-day accumulation area within 24 hours to be in compliance with this requirement. Generators must still comply with labeling and other requirements for 90-day accumulation areas within minutes of exceeding the 55-gallon or one quart limit at a satellite accumulation area.

In the special circumstance where the 55-gallon/one quart limit is exceeded 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 the 90-day accumulation area by the end of the next business day. The generator must still comply with the labeling and other requirements for 90-day accumulation areas within minutes of exceeding the 55-gallon or one quart limit. In the case where an operation will cease and not be resumed on the next business day, the container(s) must be labeled and moved to the 90-day accumulation area right away.

Preparedness and Prevention, Contingency Plan and Emergency Procedures and Hazardous Waste Training

Large quantity generators with satellite accumulation areas must comply with the Preparedness and Prevention requirements of Part 265 Subpart C, Contingency Plan and Emergency Procedures of Part 265 Subpart D, and the personal training requirements of 265.16. A summary of these requirements are listed below. Please see the "Preparedness and Prevention, Contingency Plan, and Emergency Procedures –Large Quantity Generator Guidance," "Contingency Plan Template – Large Quantity Generator" and "Personnel Training – Large Quantity Generators" guidance documents (available on our website at www.colorado.gov/cdphe/hm) for additional interpretive guidance.

Preparedness and Prevention
The preparedness and prevention requirements include provisions for:

- Safe maintenance and operation of the facility to minimize the possibility and severity of a fire, explosion or any release of hazardous waste or hazardous waste constituents.
- Providing the facility with proper emergency response equipment.
- Testing and maintenance of emergency response equipment.
- Access to internal and external emergency communication or alarm systems.
- Adequate aisle space to allow unobstructed movement of emergency response personnel and equipment.
- Arrangements made with local emergency response authorities, such as police, fire, local health departments, emergency response teams, and local hospitals.

Contingency Plan and Emergency Procedures
The contingency plan and emergency procedures requirements include provisions for:

- Contingency plan implementation.
- Content of the contingency plan including facility personnel response, arrangements with local emergency response authorities, list of emergency coordinator(s) and emergency response equipment, and an evacuation plan.
- Maintaining a copy of the contingency plan and submittal of the contingency plan to local emergency response authorities.
- Review and amending the contingency plan.
- Emergency coordinator requirements and responsibilities.
- Implementation of emergency procedures.

The location of all satellite accumulation areas and 90-day accumulation areas at the facility must be included in the contingency plan. It is recommended that the satellite accumulation areas be identified on a facility map, but the generator may list the area or number of areas by location (e.g. Room 32A – 3 satellite accumulation areas; Room 11 – 1 satellite accumulation area; Room 43 – 2 satellite accumulation areas).

Temporary satellite accumulation areas also need to be designated in the contingency plan. The generator may choose to keep two satellite accumulation area facility maps or lists; one facility map or list to designate permanent areas and one facility map or 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 facility map or list.

Personnel Hazardous Waste Training
The facility personnel hazardous waste training requirements include provisions for:

- Classroom instruction and on-the-job training.
- Training provided by an individual trained in hazardous waste management procedures.
- Instruction in hazardous waste management procedures, contingency plan implementation, and emergency response training.
- Personnel receiving training within six months after the date of their employment or assignment to a new position at the facility.
- Annual refresher training.
- Documentation of employee records including hazardous waste job title and name of the employee in the position, written job description, and training required for the position.
- Documentation of completed training for current and former employees.

Regulatory Comparison

Areas where Colorado Hazardous Waste Regulations 6 CCR 1007-3 are more stringent than federal requirements related to large quantity generator satellite accumulation:

1. In Colorado, a large quantity generator that manages hazardous waste in satellite accumulation containers must move that container(s) to the 90-day accumulation area 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) and Section 265.52(h).

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For more information please contact:

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

Customer Technical Assistance Line:
(303) 692-3320
(888) 569-1831 ext. 3320 toll-free

Division website: www.colorado.gov/cdphe/hm

E-mail: comments.hmwmd@state.co.us

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This is designed to provide guidance on the appropriate management of wastes based on Colorado solid and hazardous waste statutes and regulations only. Other statutes and regulations may also apply.

Colorado Department of Public Health and Environment

Satellite Accumulation Area
Inspection Checklist
(Large Quantity Generators)

- **Is the total amount of waste stored in this area less than 55 gallons of hazardous waste or one quart of acutely hazardous waste?**

- **Is the satellite accumulation area at or near the point of generation with nothing that might interfere with the transportation of waste to the satellite area?**

- **Is the area under the control of the operator of the process generating the waste, either visually or under lock and key?**

- **Is the satellite accumulation container marked with the words "Hazardous Waste" or other words to identify the contents of the container?**

- **Have you conducted weekly inspections of the waste accumulation container looking for leaks or deterioration?** (complete the weekly inspection log)

  - Is the container in good condition and not leaking?

  - Is the container kept closed except when waste is being added or removed?

  - Is the container stored in a manner to prevent rupture or leakage?

  - Is the waste compatible with the type of container it is stored in and won't cause it to rupture, leak or corrode?

  - Are wastes that could react together kept separated by a dike, berm, or wall?

  - If the container holds ignitable or reactive waste, is it located at least 50 feet from the facility property line?

  - Is there adequate aisle space around the container to allow unobstructed movement of emergency response personnel and equipment?

- **Is the container clearly marked with the accumulation start date as soon as (within minutes) the level of 55 gallons of hazardous waste or one quart of acutely hazardous waste is met?**

  - Ensure the dated container is moved to the 90 day accumulation storage area within 24 hours.

- **Is the current location of the satellite accumulation area recorded in the facility contingency plan?**

Weekly SAA Container Inspection Log Sheet (LQG)

Month _____ Year _____

Record any problems noted; document how they were corrected and the date of correction. Attach extra sheet if necessary.

Week	1	2	3	4	Comments
<55 Gallons in Satellite Accumulation Area					
Contents of Container Labeled					
Good Condition/Not Leaking					
Kept Closed					
Stored to Prevent Rupture/Leakage					
Waste Compatible With Container					
Incompatible Wastes Separated					
Ignitable/Reactive Wastes Store >50' From Property Line					
Adequate Aisle Space					
Accumulation Start Date Marked and Container Moved to 90 Day Area When Full – Check Daily					
Your Initials					