

NEW MEXICO BOARD OF PHARMACY PRELIMINARY CATEGORY 2 & 3 HAZARDOUS DRUG STERILE COMPOUNDING INSPECTION REPORT

Facility Name	License #
Street Address	City
Zip Code	Phone #
Designated Person (aka PIC or Consultant RPh)	Designated Person License #
Date of Inspection:	Inspector Signature:
Official Signature:	30 Day Response

Anticipated Dosage Forms of Sterile Compounding (circle all that apply)
Injections, including infusions
Ophthalmic
Aqueous preparations for pulmonary inhalation.
Baths and Soaks for live organs and tissues
Implants
Irrigations for Wounds or Body Cavities

Anticipated Preparation Level (circle all that apply)	
Does the pharmacy plan to dispense patient-specific CSPs pursuant to a prescription?	Yes/No
Does the pharmacy plan to distribute CSPs without a prescription or compound sterile preparations for office use?	Yes/No
Does the pharmacy plan to dispense any CSPs out of New Mexico?	Yes/No
If so, to which states will CSPs be shipped?	

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If CSPs will be shipped out of state, does the pharmacy have policies and procedures for proper shipping?	Yes/No
What volume of CSPs will be shipped out of state? (If more than 5% of total prescriptions dispensed, the pharmacy must register as an outsourcing facility)	%
Does the pharmacy plan to compound regularly or in inordinate amounts any CSPs that are essentially copies of commercially available drug products?	Yes/No

Category of Compounded Sterile Preparations (CSPs) to be made by facility. (Circle all that apply) Category 2 Category 2 Category 3
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INSPECTION CHECKLIST

Inspection items with * indicate the item is a USP and/or CriticalPoint recommendation and may be considered best practice.

I. STANDARDS FOR STERILE COMPOUNDING CLEANROOM SUITE	Compliant? Yes/No/NA	COMMENTS
HD Buffer Room is at least 100 ft ²		
Sterile HD compounding must be performed in a C-PEC that provides an ISO Class 5 or better air quality, such as a Class II or III BSC or CACI. Class II BSC types A2, B1, or B2 are acceptable.		What type of PEC is used?
The PEC used for sterile HD compounding is externally vented?		
The SEC itself is externally vented?		
All sterile hazardous compounding is performed in a secondary engineering control (SEC) that is physically separated from other compounding areas.		

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Ceilings, walls, floors, doors, door frames, fixtures, shelving, counters, cabinets in buffer area must be smooth, impervious, free from cracks and crevices and non-shedding so they can be cleaned and disinfected and to minimize spaces in which microorganisms and other contaminants can accumulate.		
Floors in the cleanroom suite must include coving to the sidewall, or the juncture between the floor and the wall must be caulked. Floors must be smooth, impervious and free of cracks and crevices and non-shedding. 1. Tacky Mats are not allowed in ISO Class Spaces 2. *Avoid fatigue mats, especially those that feature at waffle bottom		
Walls in the cleanroom suite must be fixed and constructed of, or may be covered with, durable material (e.g., epoxy painted walls or heavy-gauge polymer). Panels must be joined together and sealed to each other and the support structure.		
If ceilings consist of inlaid panels, the panels must be caulked around each panel to seal them to the support frame.		
Junctures between the ceiling and the walls must be sealed to eliminate cracks and crevices where dirt can accumulate.		
Dust-collecting overhangs, such as utility pipes, and ledges, such as windowsills should be minimized in the cleanroom suite. If overhangs or ledges are present, they must be easily cleanable.		
Buffer Room shall maintain a well-lighted work environment with an average of 80-150 foot candles.		
The exterior lens surface of ceiling light fixtures must be smooth, mounted flush, and sealed.		
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Carts used to transport components or equipment into classified areas must be constructed from nonporous materials with cleanable casters and wheels to promote mobility and ensure ease of cleaning and disinfection.	
Carts must not be moved from the dirty side to the clean side of the anteroom unless the entire cart, including casters, is cleaned and disinfected.	
* Pass-throughs are best placed between the buffer room and the non-classified space to reduce the traffic and introduction of particles/microbes into the anteroom. If a <u>pass-through</u> is located in the anteroom it should be on dirty side.	
Pass-throughs are enclosed chambers with interlocking sealed doors on both sides.	
No shipping carton(s) or other corrugated or uncoated cardboard are allowed in the cleanroom suite. Removal of immediate packaging designed to retain sterility or stability is allowed in PEC.	
Only furniture, equipment, and other materials necessary for performing compounding activities are permitted in the cleanroom suite, and they should be low-shedding and easily cleaned and disinfected. Avoid excessive amounts of supplies.	
Disposable or cleanable equipment for compounding HDs (e.g., mortar and pestle, graduated cylinder, spatulas) is dedicated for use only with HDs.	
*Trash receptacle at least 6 feet away from PEC – Best Practice	

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Temperatures and humidity are monitored in <u>each room</u> of cleanroom suite each day compounding is performed. <u>Should be ≤ 68°F and relative humidity of ≤ 60%.</u> Device accuracy must be verified annually or as required by manufacturer	
Components (ingredients used in compounding) will be handled and stored in a manner that prevents contamination, mix-ups, and deterioration and under temperature, humidity, and lighting conditions consistent with those indicated in official monographs or specified by the suppliers and/or manufacturers.	
Temperature in CSP & component storage areas are monitored at least once daily and recorded on a log on days when the facility is open or by a continuous temperature recording device; temperature data is readily retrievable.	

II. CERTIFICATION & DOCUMENTATION	Compliant? Yes/No/NA	COMMENTS
All Primary Engineering Controls are <u>initially certified by</u> an independent qualified contractor and maintain ISO Class 5 or better air quality during <u>dynamic conditions</u> .		
Buffer room <u>initially</u> independently certified to maintain ISO Class 7 conditions under dynamic conditions. (Request Documentation)		
Ante-room initially independently certified to maintain ISO Class 7 conditions under dynamic conditions. (Request Documentation)		

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Dynamic airflow smoke pattern testing must be performed initially in <u>primary engineering controls</u> under dynamic conditions to confirm unidirectional airflow. The airflow smoke patterns should be documented, ideally with video.		
If air returns in the cleanroom suite are <u>not low on the wall</u> a visual smoke study has been performed to demonstrate an absence of stagnant airflow. Does not need to be under dynamic operating conditions. Only performed one time but must be repeated if equipment is placed in a different location. This smoke study should be documented, ideally with video.		
HEPA filter leak test is initially performed in <u>primary</u> engineering controls.		
HEPA filter leak tests are initially performed in secondary engineering controls.		
The SEC has appropriate air changes per hour (ACPH)?		Measured ACPHs at last certification?
The SEC has appropriate air changes per hour (ACPH)? Appropriate for <u>ISO Class 7 buffer room</u> = 30 ACPH.		
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Appropriate for ISO Class 7 buffer room = 30 ACPH. Appropriate of ISO Class 7 ante-room = 30 ACPH Viable volumetric air sampling initially performed throughout all ISO areas using an impaction air sampler. Sampling must occur during dynamic conditions. At least 1000 liters of air must be tested. Sampling locations shall be defined in SOPs in a diagram or map. Ask for		
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Viable air and surface samples did not exceed	PEC Air	PEC Surface
recommended USP action levels (or internal action levels if more restrictive).		
Classification Air Sample Surface Sample	Buffer-Room Air	Buffer-Room Surface
ISO Class 5 >1 CFU/m3 >3 CFU/plate ISO Class 7 >10 CFU/m3 >5 CFU/plate		
ISO Class 8 >100 CFU/m3 >50 CFU/plate	Ante-Room Air	Ante-Room Surface
CFUs are TOTAL of bacterial plus fungal/mold plates.		
An attempt is made to identify any microorganism		
recovered to the genus level when CFUs detected by air or surface sampling exceeded action levels.		
If CFU action levels for a specified air and surface sampling are exceeded, a corrective action plan must be		
documented. The corrective action plan must be dependent on the cfu count and the microorganism recovered. The extent of the investigation should be consistent with the		
deviation and should include an evaluation of trends. Some examples of corrective action include process or		
facility improvements, personnel training, cleaning and disinfecting, or HEPA filter repair and/or replacement.		
Data collected in response to corrective actions must be reviewed to confirm that the actions taken have been		
effective. The corrective action plan must be documented and should include resampling of failed areas to confirm		
corrective action was successful.		
All certification and recertification records are reviewed		
by the designated person(s). A corrective action plan is implemented and documented in response to any out-of-		
range results on certification report and data reviewed to confirm that the actions taken have been effective.		
A pressure differential monitoring device is used to		
continuously monitor pressure differentials. Pressures must be documented at least daily on the days when		
compounding occurs.		

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The ISO Class 7 buffer room maintains a <u>negative</u> pressure between 0.01 and 0.03 inches water column relative to adjacent areas.	Differential	
The ISO Class 7 ante-room maintains a positive pressure of at least 0.02-inch water column relative to adjacent unclassified areas.	Differential	
PECs are located within an ISO Class 7 buffer room?		
Incubators are not located in buffer or ante-rooms as they are a biohazard.		
*Facility should perform environmental wipe sampling to detect uncontained hazardous drugs (initially as a benchmark and at least every 6 months). Areas sampled should include: 1. Interior of the C-PEC and equipment contained in it 2. Pass-through chambers 3. Surfaces in staging or work areas near the C-PEC 4. Areas adjacent to C-PECs (e.g., floors directly under C-PEC, staging, and dispensing area) 5. Areas immediately outside the HD buffer-room 6. Patient administration areas		
Library of current references (hard copy or electronic) shall be available including: USP/NF or USP on Compounding: A Guide for the Compounding Practitioner or USP Compounding Compendium; New Mexico pharmacy rules and regs; specialty references as appropriate.		
Compounding activities that require the manipulation of a patient's blood-derived or other biological material (e.g., autologous serum), are clearly separated from other compounding activities and equipment used in CSP preparation activities and controlled by specific SOPs to avoid cross-contamination.		

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III. RECEIVING, STORAGE & COMPOUNDING OF HDs	Compliant? Yes/No/NA	COMMENTS
*When compounding HD preparations, a plastic-backed preparation mat should be placed on the work surface of the C-PEC? (Check if available)		
All sharps, tubing, empty containers, supplies and PPE are disposed of in a yellow, hazardous products container, and container is kept closed. (Federal RCRA guideline) (Check if available, should be in receiving area also.)		
Bulk HD waste is discarded as Resource Conservation and Recovery Act (RCRA) waste in black containers. Bulk = vials or drug containers that are not empty, cleanup pads or swept up contents of HD spills. (Federal RCRA guideline). Check if available.		
HDs (antineoplastics and APIs) will be unpacked in a specially designated area that is neutral/normal or negative pressure? They must not be unpacked in sterile compounding or positive pressure areas.		
Elastomeric half-mask with a multi-gas cartridge and P100-filter is available in receiving area? Personnel unpacking HDs not contained in plastic should wear this mask until assessment of the packaging integrity can be made to ensure no breakage or spillage occurred.		
Antineoplastic Hazardous Drugs and Hazardous Drug APIs will be stored separately from non-HDs in an externally vented, negative pressure area with at least 12 air changes per hour? Storage in the negative pressure buffer room is acceptable. HDs cannot be stored on the floor.		
Refrigerated antineoplastic HDs will be stored in a dedicated refrigerator in a negative pressure area with 12 ACPH? Refrigerator may be in the negative pressure buffer room and should have its compressor located near exhaust. Pass-through refrigerators are not permitted.		

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Hazardous drug spill kits are readily available in all areas where HDs will be routinely handled (including receiving area)?	
Signage designating HD handling areas are prominently displayed and access to HD handling areas is restricted to authorized personnel.	
HDs will be transported in containers that minimize the risk of breakage or leakage. Pneumatic tubes must not be used to transport any liquid HDs or any antineoplastic HDs?	

IV. CLEANING OF COMPOUNDING AREAS	Compliant? Yes/No/NA	COMMENTS
Surfaces of PEC are deactivated and decontaminated at least daily (when used), any time a spill occurs, before and after certification, any time voluntary interruption occurs, and if the ventilation tool is moved? The work surface of the C-PEC is decontaminated between compounding of different HDs? (Check if decontaminating agent available)		
The PEC and equipment (such as automated compounding devices) inside the PEC is cleaned and disinfected daily on days when compounding occurs. This may be accomplished in one step with an EPA-registered one-step disinfectant cleaner. Cleaning, disinfecting and sporicidal agents used within the PEC must be sterile. (Check if one-step disinfectant cleaner/germicidal detergent available)		
Surfaces within the PEC are disinfected with sterile 70% IPA after cleaning, disinfecting or application of a onestep disinfectant cleaner or sporicidal disinfectant. Sterile 70% IPA must also be applied immediately before initiating compounding, every 30 mins during continuous compounding, and when surface contamination is known or suspected. (Check if sterile 70% IPA available)		

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All cleaning materials are low-lint. Cleaning materials (sponges, wipers, mop heads) should be disposable. (Check if available)	
Cleaning tools are <u>dedicated and only for use in HD</u> <u>classified area</u> . Reusable cleaning tools must be made of cleanable materials (e.g., handles should not be made of wood or any other porous material) and must be cleaned and disinfected before and after each use. (Check if available)	
Area under work tray/surface (if exists) is deactivated, decontaminated and cleaned at least monthly. Appropriate PPE (esp. respiratory protection) must be worn during this process. (Check if appropriate respiratory protection available)	
A sporicidal disinfectant must be applied monthly to all PECs, and all areas and equipment within the cleanroom suite for facilities compounding <u>Category 2 CSPs</u> . Select areas that compound Category 3 CSPs require weekly application of a sporicidal. (Check if sporicidal agent is available.)	

V. PERSONNEL CLEANSING AND GARBING	Compliant? Yes/No/NA	COMMENTS
The following is available for handwashing Procedures: • Disposable nail cleaners • Low-lint disposable towels		
 The following is available for Category 2 Garbing: Low-lint garment with sleeves that fit snugly around the wrists and an enclosed neck (e.g., gown or coverall) Low-lint shoes covers Low-lint cover for head that covers the hair and ears, and if applicable, cover for facial hair Low-lint, fit-tested, NIOSH certified N95 or more respirator Sterile powder-free chemo gloves 		

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The following garb is required for Category 3 compounding: PPE must cover all skin. Exposed skin is not allowed in	
the buffer room (i.e., face and neck must be covered). • All low-lint outer garb must be sterile • PPE may include goggles, respirators, or other reusable equipment. Must have disinfection procedures for reusable PPE.	
Gowns worn for HD compounding must close in the back (i.e., no open front), be long sleeved, and have closed cuffs that are elastic or knit. Gowns must not have seams or closures that could allow HDs to pass through. (Gowns that are polyethylene-coated polypropylene or other laminate materials offer better protection)	
Alcohol-based hand rub is used prior to donning sterile gloves. Sterile gloves must be donned in a classified room. Check if available	
Appropriate eye and face protection (both goggles and face shields worn together or a full-facepiece respirator) must be worn when there is a risk for spills or splashes of HDs or HD waste materials when working outside of a C-PEC (e.g., administration in the surgical suite, working at or above eye level, or cleaning a spill)? Eye glasses alone or safety glasses do not protect the eyes adequately from splashes. (check to see if available)	
Gowns and other garb are stored in a manner that minimizes contamination (e.g., away from sinks) and within a classified area or SCA.	
*An appropriate full-facepiece, chemical cartridge-type respirator or powered air-purifying respirator (PAPR) should be worn when there is a risk of respiratory exposure to HDs. (check if respiratory protection available)	

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VI. ASEPTIC PROCESSING, TERMINAL STERILIZATION, AND MISC.	Compliant? Yes/No/NA	COMMENTS
Will the facility prepare Category 2 or Category 3 CSPs from nonsterile starting components?	<u>Circle Answer</u> : Yes or No (if No, skip to letter A)	
Pre-sterilization procedures (weighing, mixing) must be performed in no less than ISO 8 environment (ante-room or buffer room).		
Pre-sterilization procedures must be performed in single- use containment glove bags, containment ventilated enclosures (CVEs), BSCs, or CACIs to minimize the risk of airborne contamination.		
CVEs, BSCs, or CACIs used for presterilization procedures have been initially certified.		
PECs used for sterile and nonsterile compounding (e.g., pre-sterilization procedures) are placed in separate rooms unless the buffer room can maintain an ISO Class 7 classification during particulate generating activities. Request dynamic particle count testing results if both PECs are in buffer room.		
Co-located PECs must be at least 1 meter apart.		
*Terminal Sterilization Devices (Dry-heat ovens and autoclaves) are recommended to be placed in an ISO-Class Room.		
A. Are the Category 2 or Category 3 CSPs <u>aseptically processed</u> (either compounded with only sterile starting ingredient(s) or compounded with nonsterile ingredient(s) followed by sterilization by filtration), or <u>terminally sterilized</u> (e.g., steam, dry heat, or irradiation)?	Circle Answer: Aseptically Processed (If sterilized by filtration go to B . below; if only sterile starting ingredients are used skip to end)	
{Note: If one or more starting components being used to compound is not sterile, sterility must be	(Skin to C and/or I) below)	

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achieved through sterilizing filtration or terminal	
sterilization }	
B. Filtration (aseptically processed)	
If Category 2 or 3 CSPs are sterilized by filtration the filters are sterile, pyrogen free, have a nominal porosity of 0.22 µm or smaller and are appropriate for pharmaceutical use. (Check if filters available)	
Each filter that is used shall undergo integrity test such as bubble-point test. All bubble-point test results are kept. Filters cannot be reused. Bubble-point testing is done after filtration not before. (Check if bubble-point test equipment available)	
C. Terminal Sterilization by Steam Heat	
The terminal sterilization process is intended to achieve a probability of a nonsterile unit (PNSU) of 10–6.	
The steam supplied in the autoclave is generated using water per the manufacturer's recommendation.	
Before filling containers to be steam sterilized, solutions are passed through a filter no larger than 1.2 µm to remove particulates. (Check if filters available)	
The effectiveness of steam sterilization must be verified and documented with each sterilization by using appropriate biological indicators, such as spores of Geobacillus stearothermophilus and other confirmation methods such as physicochemical indicators. (Check if biological indicators are available).	
A calibrated data recorder or chart is used to monitor each cycle and to examine for cycle irregularities (e.g., deviations in temperature or pressure). (Check if data recorder available)	

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D. Terminal Sterilization by Dry Heat	
The terminal sterilization process is intended to achieve a probability of a nonsterile unit (PNSU) of 10–6.	
Before filling containers to be dry heat sterilized, solutions are passed through a filter no larger than 1.2 µm to remove particulates. (Check if filters available)	
The calibrated oven is equipped with temperature controls and a timer. A calibrated data recorder or chart is used to monitor each cycle and the data is reviewed to identify cycle irregularities (e.g., deviations in temperature or exposure time). (Check for temperature and time controls)	
The effectiveness of the dry heat sterilization method must be verified and documented with each sterilization run or load using appropriate biological indicators such as spores of Bacillus atrophaeus and other confirmation methods (e.g., temperature-sensing devices). (Check for biological indicators)	
E. Depyrogenation	
Dry heat depyrogenation is used to render glassware, metal, and other thermostable containers and components pyrogen free. The exposure period includes sufficient time for items to reach the depyrogenation temperature; items remain at the depyrogenation temperature for the duration of the depyrogenation period.	
The effectiveness of the dry heat depyrogenation cycle(s) is established initially and verified annually using endotoxin challenge vials (ECVs) to demonstrate the cycle achieves a greater than or equal to 3-log endotoxin reduction. The effectiveness of the depyrogenation cycle is re-established if there are changes to the depyrogenation cycle. Cycle verifications are documented. (Check if ECVs are available)	

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VII. LYOPHILIZATION	Compliant? Yes/No/NA	COMMENTS
Sterile preparations prepared for lyophilization will be maintained in ISO 5 unidirectional laminar flow air throughout sterilization, filling, and transport to the lyophilizer.		
A recorded smoke study is available and demonstrates that transport from the PEC to the lyophilizer is accomplished in ISO 5 laminar flow air at all times.		
The pharmacy validated the lyophilizer high-level disinfection procedure initially. Documentation of studies is available for inspection.		
Validation studies for high level disinfection were performed with the 5-aerobic bacterial and fungal ATCC organisms referenced in USP<71> are conducted by an external vendor unless the firm has an internal laboratory capable of performing the studies. An internal laboratory is separate from the compounding and work areas of the pharmacy to prevent contamination in the pharmacy.		
The pharmacy has provisions for sterilizing, with filters, the inert gas or air used for backfilling during the vacuum release phase. These Sterilizing filters undergo the manufacturers recommended integrity test.		

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BUD Limits for Category 2 CSPs

(Circle the applicable preparation characteristics and storage conditions)

Preparation Characteristics		Storage Conditions			
Compounding Method	Sterility Testing Performed and Passed	Controlled Room Temperature (20°–25°)	Refrigerator (2°–8°)	Freezer (-25° to -10°)	
Aseptically processed CSPs	No	Prepared from one or more nonsterile starting components: 1 day Prepared from only sterile starting components: 4 days	Prepared from one or more nonsterile starting components: 4 days Prepared from only sterile starting components: 10 days	Prepared from one or more nonsterile starting components: 45 days Prepared from only sterile starting components: 45 days	
	Yes	30 days	45 days	60 days	
Terminally	No	14 days	28 days	45 days	
Sterilized CSPs	Yes	45 days	60 days	90 days	
→ Are Beyond-Use Dates (BUDs) assigned appropriately?		Yes / No			

BUD Limits for Category 3 CSPs

(Circle the applicable preparation characteristics and storage conditions)

Preparation Characteristics	Storage Conditions			
Compounding Method	Controlled Room Temperature (20°–25°)	Refrigerator (2°–8°)	Freezer (-25° to -10°)	
Aseptically processed, sterility tested, and passing all applicable tests for Category 3 CSPs	60 days	90 days	120 days	
Terminally sterilized, sterility tested, and passing all applicable tests for Category 3 CSPs	90 days	120 days	180 days	
→ Are Beyond-Use Dates (BUDs) assigned appropriately?	Yes / No	Yes / No	Yes / No	

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Compounding Personnel and Competency Evaluation/Assessment

(<u>Direct oversight personnel</u> must also initially complete training and demonstrate competency and also initially complete a <u>garbing competency evaluation</u> and <u>aseptic manipulation competency evaluation</u>.)

NAME	LICENSE#	Initial Training and Competency Assessment of Core Skills	Initial HD Training	Written Confirmation of Understanding the risks of handling HDs	Initial Garbing Competency Evaluation	Initial Aseptic Manipulation Competency Evaluation

New Mexico Regulation and Licensing Department BOARD of PHARMACY