DEPARTMENT OF CORRECTIONS

Policy:	**500.522**
Title:	**Negative Pressure Isolation Rooms**
Effective Date:	**10/3/17**

PURPOSE: To separate offenders who have suspected or confirmed infectious tuberculosis (TB) from other persons; to provide an environment that allows reduction of the concentration of droplet nuclei through various engineering methods; and to prevent the escape of droplet nuclei from such negative pressure isolation rooms into the corridor and other areas of the correctional facility using directional airflow.

APPLICABILITY: Minnesota Department of Corrections (DOC); Oak Park Heights Transitional Care Unit

DEFINITIONS:
Negative pressure room –room that has a lower pressure than adjacent areas, which keeps air from flowing out of the room and into adjacent rooms or areas.

PROCEDURES:

A. The department must keep offenders with suspected or confirmed infectious tuberculosis (TB) disease in isolation rooms under negative pressure to induce air flow into the room from all surrounding areas (e.g., corridors, ceiling plenums, plumbing chases, etc).

B. Monitoring negative pressure isolation rooms when in use

1. The facility safety administrator/designee must begin monitoring immediately prior to or upon the isolation of an offender with suspected or confirmed infectious TB.

2. The facility safety administrator/designee must monitor the negative pressure isolation rooms daily.

3. The supervising lieutenant/designee conducts daily testing to ensure the room is under negative pressure. The supervising lieutenant/designee must:
   a) Ensure the offender in the room is wearing a surgical mask when the negative airflow room is accessed.
   b) Hold non-irritating smoke near the bottom and approximately two inches in front of the door, or at the face of a grill, or other opening if the door has such a feature. Generate a small amount of smoke.
      1) The smoke must be held parallel to the door, and the smoke must be issued slowly to ensure the velocity of the smoke does not overpower the air velocity.
      2) If an anteroom exists, the direction of the airflow must be tested at the inner door between the isolation room and the anteroom.
   c) Move the smoke generator along the bottom of the door.
   d) Observe the smoke traveling under the door and into the room, which indicates the room is under negative pressure.
   e) Observe, if the room is not under negative pressure, the smoke will be blown outward or remain stationary.

4. Staff must check the pressure differential gauge daily (if the room is equipped with one) and document it on the room log with the date, time, and staff initials.

5. If the room is not under negative pressure, the offender must continue to wear a mask until repairs are completed, and a successful smoke test is achieved.

6. If the room cannot be repaired within six hours, the offender must be transported, via ambulance, to the emergency room.

C. Monitoring negative pressure isolation room when not in use
The unit supervising lieutenant/designee must:
1. Conduct monthly the non-irritating smoke tests as described in Procedure B; and

2. Document the results on the Negative Pressure Isolation Room Log (attached).

D. The facility safety administer retains all documentation of the negative airflow monitoring process and approved equipment.

E. If the room is not equipped with an anteroom, the facility safety administrator must develop instructions to minimize entry of contaminated air to the corridor including such examples as:
1. Minimizing entry into the room;

2. Adjusting the hydraulic closer to slow the door movement; and

3. Reducing displacement effects.

F. Air exhausted from negative pressure isolation rooms
1. Staff must ensure that air exhausted from the rooms is safely exhausted directly outside, and not recirculated into the general ventilation system.

2. If the air going outside is not exhausted through a high-efficiency particulate air (HEPA) filter, the air must be exhausted away from intake vents, operable doors and/or windows, and sidewalks.

G. Communication of hazards – staff must:
1. Post instructions on the door, including:
   a) The signal word, “stop;”
   b) “Airborne isolation;” and
   c) A description of the necessary precautions to take.

2. Label ventilation system components that transport contaminated air with a biological hazard label.

3. Identify and label circuit breakers to prevent unplanned shutdown of the dedicated ventilation system.

H. Cleaning rooms in use
Staff must:

1. Use an Environmental Protection Agency (EPA) approved germicide or disinfectant in the routine daily cleaning of isolation rooms;

2. Follow isolation practices while cleaning these rooms;

3. Allow the offender, when appropriate, to clean his/her room; and

4. Wipe down cleaning equipment used in the room with an EPA approved germicide or disinfectant before being reissued.

I. Cleaning vacated rooms
Staff must:
1. Ventilate the room in accordance with the Air Changes Per Hour Chart (attached) to achieve 99.9% efficacy in removing airborne contaminants;

2. Document the cleaning in the Negative Pressure Isolation Room Log; and

3. After proper ventilation, allow the area offender cleaners to complete the final clean-up using an EPA approved germicide or disinfectant, without using special personal protective equipment other than that required by normal usage of the cleaning chemical.

J. Recommended equipment
1. Outside the room
   a) Safety administrator approved respirators (N95); and
   b) A contaminated linen hamper with lid (soiled linen and waste is handled using standard precautions).

2. Inside the room
   a) Garbage holder for contaminated waste;
   b) Plastic aprons or gowns; and
   c) Disposable gloves.

K. All staff entering an airborne isolation room must wear a National Institute of Occupation Safety and Health (NIOSH) respirator with a minimum filtering efficiency of N95.
1. The staff wearing respiratory protection must be medically certified and trained.

2. Staff wearing tight-fitting negative pressure respirators must have successfully completed a fit test.

3. Only trained essential staff may enter the room.

INTERNAL CONTROLS:
A. The facility safety administrator retains documentation of required negative airflow monitoring processes and approved equipment.

ACA STANDARDS: 4-4355

REFERENCES: Division Directive 500.010, "Health Services"
Occupational Safety and Health Administration (OSHA) Directive CPL 02-02-078

Minnesota Occupational Safety and Health Administration (MNOSHA) Instruction CPL 2-2.48.
Morbidity and Mortality Weekly Report "Guidelines for preventing the transmission of mycobacterium tuberculosis in health care facilities," 1994.
Centers for Disease Control, "Prevention and Control of Tuberculosis in Detention and Correctional Facilities: Recommendations from CDC," July 7, 2006.
Centers for Disease Control, "TB in Correctional Facilities in the United States."

REPLACES: Policy 500.522, "Negative Pressure Isolation Rooms," 11/3/15.
All facility policies, memos, or other communications, whether written or transmitted by electronic means regarding this subject.

ATTACHMENTS: Negative Pressure Isolation Room Test Log (500.522A)
Air Changes Per Hour Chart (500.522B)

APPROVED BY:
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