



This Program is made Possible through the Code Officials Education & Training Fund. Revenue for the Fund comes from Assessments on Building Permits.

Please turn down cell phones and put pagers on vibrate.

Thank you



2003 INTERNATIONAL MECHANICAL CODE

INSPECTION TECHNIQUES

*June 2010
Career Development
Jack VanNess Trainer*



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Mechanical Code Inspection Techniques

- **PRESENTED BY**
 - Department Of Public Safety
 - Office Of Education & Data Management
- **Referenced From:**
 - 2003 International Mechanical Code
 - State Building Code /
 - *2005 Connecticut Supplement*
 - *2009 Amendments to the 2005 Supplement*



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Objectives

- **Application of 2003 IMC**
 - With Supplement & Amendment changes
 - *To actual field inspections*
- **Applying code inspection techniques**
 - To field situations
- **Referencing of field situations**
 - To code sections

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Inspections And Testing

- **Required Inspections & Testing**
 - **Section 107.1**
 - *"...Code Official upon notification from the permit holder's agent, shall make the following inspections and such other inspections as necessary..."*

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Inspections To Be Performed



- **Underground Inspection**
 - Before trench backfilling
- **Rough-in Inspection**
 - With structural frame in place
 - *Inspection of ducting & components*
 - Before concealment
- **Final Inspection**
 - All components in place

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● ● ● | **Rough-In Inspection**



● ● ● | **Final Inspection**



● ● ● | **Inspections And Testing**

- **Section 107.1**
 - **Continuation:**
 - *"...The holder of the permit shall be responsible for scheduling of such inspections...."*
 - **And:**
 - *"... this section shall not be considered to prohibit the operation of any heating equipment or appliances installed to replace existing ... serving an occupied portion...request for inspection ... filed not more than 48 hours after...work is completed...before any portion of such equipment...is concealed..."*

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Approved Inspection Agencies

- **ACCA**
 - Air Conditioning Contractors of America
- **ARI**
 - Air-Conditioning & Refrigeration Institute
- **ASHRAE**
 - American Society of Heating Refrigeration & Air-Conditioning Engineers



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Evaluation & Follow Up

- **Evaluation Report Should Indicate**
 - System and component description
 - Basis of evaluation
 - Test results
 - Additional data
 - *As deemed necessary by the Code Official*
 - *To determine conformance to code*

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Follow-up Inspection

- **Section 107.1.2.2**
 - "... The Code Official shall conduct the frequency of in-plant inspections necessary to ensure conformance..."
 - *"...or shall designate an independent, approved inspection agency to conduct such inspections ..."*

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Test & Inspection Records

- **Section 107.1.2.3**
 - **All Records Related To**
 - *A fabricated assembly inspection*
 - **Must Be Filed With The Code Official**
 - *Test Records*
 - *Inspection Records*
- **Section 107.1.3 Posting of Required Inspections**
 - **Addition to the 05 CT Supplement**

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Inspection Testing

- **Section 107.2 Testing**
 - **As required**
 - *By permit holder*
 - *Code Official observance*
- **Section 107.3 Approval**
 - **Notice of approval to be issued**
 - *After testing and inspection*
 - *Indicates compliance*
- **Section 107.5 Notification of Inspection & Testing Results**
 - **As added within the 2005 Supplement**

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Temporary Connection

- **Section 107.4 Temporary Connection**
 - **May Be Authorized Prior To The Completion Of Work**
 - *To the energy source*
 - *For testing*
 - *Temporary use*
- **Instructor Notation:**
 - **Keeping in mind the last section**
 - *Of Section 107.1*
 - *Regarding operation of heating equipment*

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Unsafe Systems

- o **Section 108.7**
 - **Unsafe mechanical systems**
 - *Constitutes a fire or health hazard*
 - *Dangerous to human life*
 - **Are declared a public nuisance**
 - *Shall be abated by*
 - **Repair**
 - **Rehabilitation**
 - **Demolition**
 - **Removal**




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Question Note

- o **All of the following questions**
 - **Are designed for the following**
 - *Does this installation or situation meet the intent of the code?*
 - *What code section or sections are applicable?*
 - *Possible discussion on code section relativity to situation!!*

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Problem #1

- *You and your assistant are inspecting an existing building for a new air conditioning system installation.*
 - *While you are inspecting, your assistant notices that the contractor is changing out the second of two furnaces, the first of which was changed yesterday and is in operation and these change outs are not noted on the permit application.*
 - *Is this furnace being operated illegally?*
 - *What section of the code applies?*

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Answer To Problem #1

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Problem #2

- *A permit for the change of occupancy of an existing building has brought about an inspection of the existing building. If the following is found:*



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• • • **Continuation Of Problem #2**

- *Is there a code violation that needs to be addressed?*
 - **If so:**
 - *What portion of Chapter 1 allows for abatement of this violation?*

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• • • **Answer To Problem #2**

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• • • **Listing & Labeling**

- **Units are to be**
 - **Listed and labeled**
 - *Unless otherwise approved*
- **Labeling**
 - **Periodic inspection to be performed by the approving authority**
 - *Verifying mechanical equipment*



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Equipment Location

- **Section 303.5 Indoor Locations**
 - To be listed and labeled for
 - *Closets & alcove installation*

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Elevation of Ignition Source

- **Section 304.3**
 - Ignition source not less than
 - *18 inches above floor*

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Public Garages

- **Where frequented by motor vehicles**
 - Units to be installed 8 feet above the floor
- **If motor vehicle exceeds 6 feet in height**
 - Install a minimum of 2 feet higher
 - *Than the tallest vehicle*

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Guards

- *Shall be provided if equipment is within 10 feet of a roof edge*
- Guard to extend 30 inches beyond each end
- Guard not to be less than 42 inches above elevated surface



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Equipment On Roofs Or Elevated Structures

- *Above 16 feet*
 - Provide permanent means of access



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Clearance Reduction

- *Clearance reduction*
 - Clearances not to be reduced
 - *Where prohibited by equipment listing*
- *Protective assembly construction*
 - Not to be placed less than
 - *1 inch from mechanical appliance*



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Problem #3

- *On final inspection of a munitions plant, you find an oil furnace has been installed within a black powder storage area.*
 - The installer has raised the furnace so the combustion chamber is 28 inches above the floor.
- *Does this installation meet code?*
 - What code section?

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Answer to Problem #3

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Problem # 4

- *A new horizontal furnace is being installed within an attic space of a former single family home that is being turned into a Doctor's Office.*
 - The contractor has enlarged the access to meet the requirements of Section 306.3 and has installed his passageway solid flooring.
 - *On inspection, the following pictures are what you find.*
 - Is there a code violation and what section or sections?

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● ● ● | **Answer to Problem #4**

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Problem #5

- *On inspection of the penthouse of a ten story high rise*
 - You find that the elevator shaft is being used to house the fan coil for the fourth floor air handler.
 - *Does this application meet code requirements?*
 - *What code section?*

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Answer to Problem #5

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Table 401.6

OPENING SIZES IN LOUVERS, GRILLES AND SCREENS PROTECTING OUTDOOR EXHAUST AND AIR INTAKE OPENINGS

OUTDOOR OPENING TYPE	MINIMUM AND MAXIMUM OPENING SIZES IN LOUVERS, GRILLES AND SCREENS MEASURED IN ANY DIRECTION
Exhaust openings	Not < ¼ inch and not > ½ inch
Intake openings in residential occupancies	Not < ¼ inch and not > ½ inch
Intake openings in other than residential occupancies	> ¼ inch and not > 1 inch

For SI: 1 inch = 25.4 mm.

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Mechanical Ventilation

- **Ventilation supply systems**
 - To be designed and deliver
 - *Required rate of supply air*
 - Within an occupied area
 - Zone boundaries measured at
 - *3" & 72" above the floor*
 - *24" from enclosing walls*
- **Ventilation rate**
 - Minimum outdoor air flow as per
 - *Table 403.3*

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Ventilation Of Uninhabited Spaces

- **Uninhabited spaces to be supplied with**
 - Natural ventilation or
 - *Be provided with mechanical ventilation*
 - Mechanical exhaust rate of
 - *0.02 cfm / sq ft*



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Problem #6

- **The building uses mechanical ventilation for the exit enclosure. The equipment is located within the enclosure, air is taken directly from the outdoors and exhausted to the outdoors.**
 - Does this installation meet code?
 - *What code section?*

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● ● ● | **Answer To Problem #6**

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● ● ● | **Problem # 7**

- *On inspection of a new hospital wing, you have found that the autopsy room ventilation system is designed at 0.60 cfm/ sq ft. with recirculation for energy conservation.*
 - **Does this application meet code requirements?**
 - *What code section*

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● ● ● | **Answer to Problem #7**

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Problem #8

- *A permit for the replacement of 2 rooftop units has been issued. Each unit being installed is equipped with an end economizer.*
On inspection this is what you find for unit #2

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- *Does this installation meet code?*
 - *What code section?*

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Answer To Problem #8

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Outdoor Discharge

- **All air removed must be discharged outdoors**
 - **Exceptions:**
 - *Whole-house ventilation*
 - *Commercial cooking recirculating systems*




Required Exhaust

- **502.1.2 Fuel-Dispensing Areas**
- **502.1.3 Equipment, Appliance & Service Rooms**
- **502.1.4 Hazardous Exhaust**






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Motor Vehicle

- **Section 502.14 Motor Vehicle Operation**
 - **Mechanical ventilation to be provided as per section 403**
 - **Stationary operation to have a source capture system**
 - **Exceptions**
 - *Electrically powered*
 - *1 & 2 Family dwellings*
 - *Operation only for moving*




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Clothes Dryer Exhaust

- **Section 504.1**
 - **Moisture and by-products**
 - *To be conveyed to the outdoors*
 - **Exception**
 - *Condensing ductless clothes dryers*
- **Dryer exhaust systems**
 - Shall be independent of all other systems




Grease Ducts

- **Section 506.3.2 Joints, Seams & Penetrations Of Grease Ducts**
 - **Continuous liquid tight weld or braze**
 - *On external surface*
 - **Exceptions**
 - *Devices listed for application*
 - *Ground smooth internal weld or braze*
 - *Listed & Labeled factory-built grease ducts*




Clearances & Enclosures

- **Section 506.3.6 Grease Duct Clearances**
 - **Type I Hood**
 - *Minimum 18" from combustible*
- **Prevention of grease accumulation**
 - **No accumulation allowed**
 - **Slope of**
 - *One-fourth unit vertical in 12 units horizontal*
 - 2% slope
 - *If exceeding 75' length*
 - One unit vertical in 12 units horizontal = 8.3% slope




Commercial Kitchen Hoods

- **Section 507.11 Grease Filters**
 - All Type I hoods shall be equipped with grease filters



TABLE 507.11
MINIMUM DISTANCE BETWEEN THE LOWEST EDGE OF A GREASE FILTER AND THE COOKING SURFACE OR THE HEATING SURFACE

TYPE OF COOKING APPLIANCES	HEIGHT ABOVE COOKING SURFACE (ft)
Without exposed flame	0.5
Exposed flame and burners	2
Exposed charcoal and charcoal type	3.5

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Hazardous Exhaust

- **Section 510.2 Where Required**
 - Whenever lack of may create
 - Flammable concentrations exceeding 25% of LFL
 - Health hazard rating of 4 or higher
 - Presence of vapor, fume or gas
 - With health hazard rating of 1, 2, or 3
 - Present in concentration greater than 1%



Blast Shafts & Doors



Explosion Relief Panel

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Smoke Control Systems

- **Section 513.4 Analysis**
 - Analysis of support to accompany
 - Submitted construction documents
- **Methods Of Control**
 - Pressurization method
 - - 513.6
 - Airflow design method
 - - 513.7
 - Exhaust rate
 - - 513.8



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Problem #9

- *A multiplex movie theatre complex is being installed in your municipality. One main projection room serving 8 theatres is to be installed. Projection equipment will use xenon lamps.*
 - **What is the minimum exhaust rate necessary for this projection room?**
 - *What code section?*

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Answer to Problem #9

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Problem #10

- *A new commercial kitchen hood, Type I system is being installed in a neighborhood restaurant.*
 - **On inspection you find that the termination measures 42 inches above the roof and is located 12 feet horizontally from the property line.**
 - *Does this installation meet code?*
 - *What code section?*

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● ● ● | **Answer to Problem #10**

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● ● ● | **Problem #11**

- *Your rooftop inspection of a local bar restaurant finds the following installation!!*



The photograph shows a large, cylindrical, stainless steel rooftop HVAC unit mounted on a flat roof. To the right of the unit is a white satellite dish. The roof surface is dark and appears to be made of asphalt or a similar material. In the background, there are other buildings and trees under a clear sky.

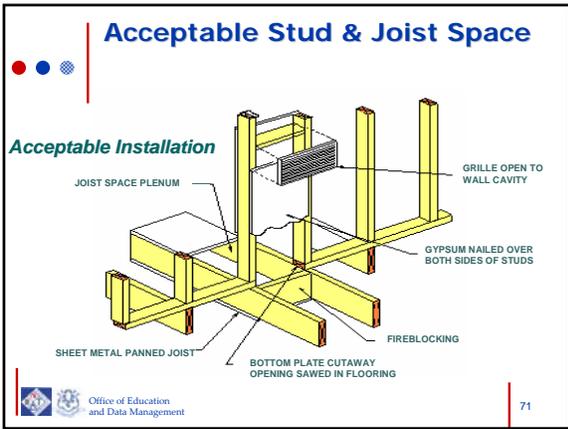
● ● ● | **Problem #11**

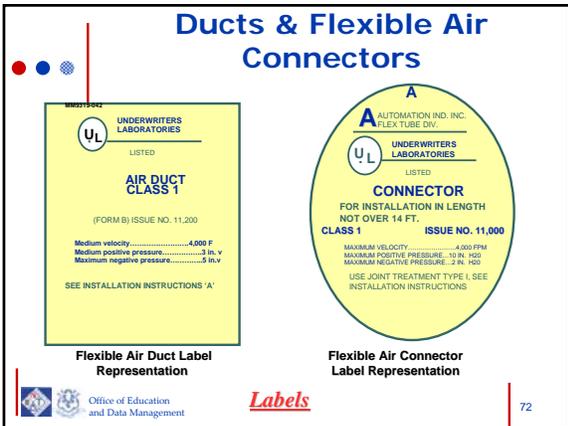
- *Does the installation meet code?*
 - *What code section(s) covers the installation?*
- **ANSWER**

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Duct Coverings Section 604.3

The diagram illustrates two methods of duct covering. The first method shows a duct wrapped in a mesh-like insulation material. The second method shows a duct with a solid grey covering and a green acoustical lining on the interior. A photograph of a roll of R8 insulation is also shown.

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Smoke Detection Systems

The diagram shows various damper configurations for smoke detection systems. It includes a vertical damper with horizontal air flow, a horizontal damper with air flow up, and a horizontal damper with air flow down. A photograph of a damper control panel is also shown.

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Problem #12

- A corridor ceiling is being used as a return air plenum
 - The system serving the corridor shuts down upon detection of sprinkler water flow from the manually operated sprinkler system.
 - Does this setup meet code?
 - What code section?

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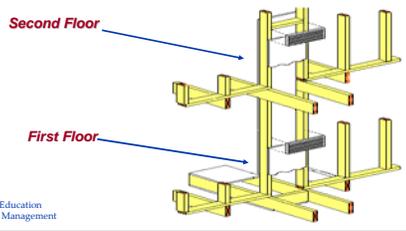
● ● ● | **Answer to Problem #12**

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● ● ● | **Problem #13**

○ *During your rough-in inspection you find the following application for joist panning>*



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● ● ● | **Problem #13 Continued**

○ *Does this meet code requirements?*

- *What code Section?*

○ **Answer**

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Combustion Air

- **701.2 Combustion & Dilution Air Required**
 - Spaces containing fuel-burning appliances
 - *Combustion & dilution air to be provided*
 - **701.2.1 Group B Medical Occupancies**
 - Providing services for four or more patients
 - *Combustion air to be provided by outdoor air*

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Prohibited Sources

- **Combustion Air Shall Not Be Taken From**
 - Any areas adversely affected by a fan
 - Any of the following with exceptions
 - *Hazardous locations*
 - *Refrigeration machinery rooms*
 - *Locations below design flood elevation*

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Combustion Air Ducts

- **Construction**
 - Galvanized steel
 - Minimum cross sectional dimension
 - *3 inches*
 - *Same size as opening*
 - No screening with attic termination
 - No slope downward toward
 - *Source of combustion air*
 - *When serving upper opening*

Outside Air From Attic

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Problem #14

- **The mechanical room of a medical occupancy (Group B)**
 - Designed for 8 patients is taking combined combustion air using condition One under section 704.
 - *Does this meet code requirements?*
 - *What code section?*

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Answer to Problem #14

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Problem #15

- **On inspection of a furnace room for proper combustion air, the following item is found, along with its supporting paperwork.**
 - **Can this be used for combustion air to meet code requirements?**
 - *What code section?*

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● ● ● | **MFG Paperwork States:
China LU listed!**



● ● ● | **Answer To Problem #15**



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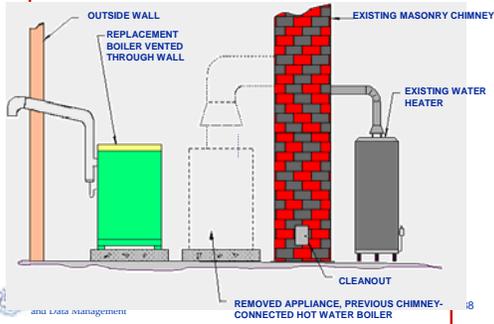
● ● ● | **Chimneys & Vents**

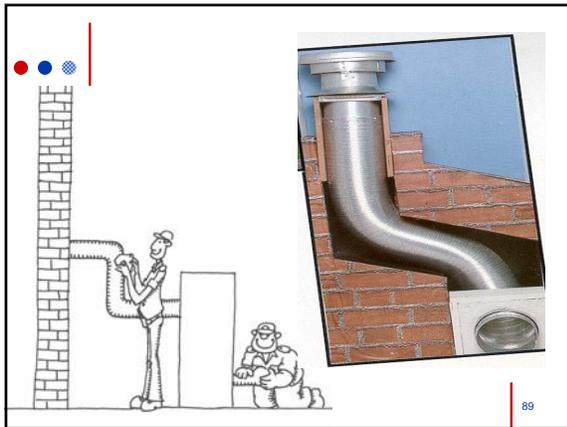
- **801.2 General**
 - Fuel fired appliances are to discharge
 - Products of combustion to a
 - Vent or chimney
- **801.2.1 Oil-Fired Appliances**
 - Shall be vented in accordance with
 - NFPA 31
- **801.6 Minimum size of chimney**
 - Minimum area [= to]
 - Appliance connection




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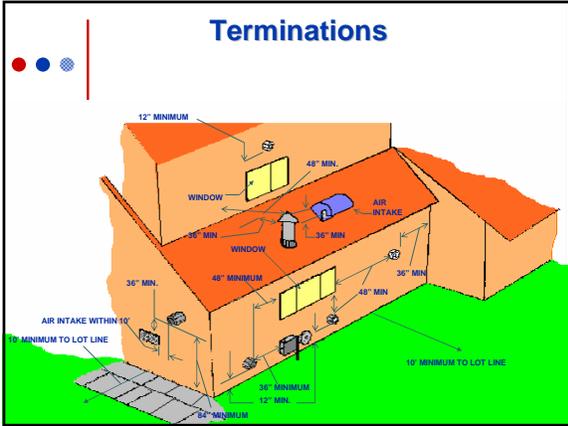
Orphaned Appliances





Vents





Problem #16

- *On inspection of a masonry chimney, it is found that the cleanout is located 4 inches below the chimney inlet opening*
 - Does this installation meet code?
 - *What code section?*

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Answer to Problem #16

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Problem #17

- *Your inspection of the building finds the furnace chimney connector going through a fire wall, using a labeled wall pass-through device, to the chimney on the other side. The round diameter is 7 inches and made of 28 gage galvanized steel.*
 - Does this installation meet code requirements?
 - *What code section?*

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Answer to Problem #17

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Fireplaces

- **Masonry Fireplaces**
 - Construct in accordance with IBC
- **Factory- Built**
 - Install in accordance with listing and labeling

MASONRY *FACTORY - BUILT*



Cooling Towers, Evaporative Condensors

- **908.2 Access**
 - To be provided with
 - **Ready Access**
- **908.3 Location**
 - Discharge vapor not to enter occupied space
 - **Discharge plume minimum distance from ventilation inlet**
 - **5 feet above or 20 feet away from**



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Warm Air Furnaces & Conversion Burners

CARLIN COMBUSTION TECHNOLOGY, INC.



MODEL G3B
Power Gas Conversion Burner



Power Gas Conversion Burner for Natural Gas
Propane Gas at 15" W.C.

The CCT Model G3A (10,000)

- Ideal for most high-efficiency gas furnaces
- Superior for use in 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

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Problem #18

- **The new Super Market is using a cooling tower for its refrigeration systems. On inspection, it is found that the discharge shall be 6 feet above any occupied space and 22 feet away from the nearest ventilation inlet of any building.**
 - Does this installation meet code requirements?
 - **What code section?**

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● ● ● **Answer to Problem #18**

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● ● ● **Problem #19**

- **The furnace installation you are inspecting is for a 200,000 Btu input, 80% efficient unit**
 - The contractor has allowed 1.5 sq inches per 1000 Btu/h of output as directed by the furnace MFG.
 - *Does this system meet the code requirements?*
 - *What code section?*

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● ● ● **Answer to Problem #19**

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Boilers And Water Heaters

- **Chapter 10 of the IMC**
 - **Is Supplemented By :**
 - *The State Building Code, 2005 Connecticut Supplement*
 - **1001.1.1 Boilers and Water Heaters**
 - **Addition from 05 Supplement**
 - *"Boilers and water heaters shall also be governed by the regulations adopted under authority of chapter 540 of the Connecticut General Statutes*

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Boiler Testing

- **Testing 1011.1**
 - **Where boiler field assembly is required**
 - *A completed U-1 MFG data report*
 - *To be submitted to the code official*
- **Test gauges 1011.2**
 - **Connected to boiler**
 - *Visible to the operator*
 - *For duration of the test*

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Problem #20

- **An inspection has found a water heater being used for space heating and potable hot water. The space heater is set at 160 F. and they have installed a tempering valve for potable hot water at a temperature of 120 degrees F.**
 - **Does this installation meet code requirements?**
 - *What code section?*

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Answer to Problem #20

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● ● ●

Problem #21

- *On inspection of a boiler, it is found that the discharge from the high pressure steam valve is vented to within 6 inches of the floor.*
 - Does this application meet code requirements?
 - *What code section?*

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● ● ●

Answer to Problem #21

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● ● ●

Refrigerants

- **1102.1 General**
 - **Classification, Allowable Refrigerants, and Maximum Quantities**
 - *From 1103 & 1104*
- **1102.2 Refrigerants**
 - **Refrigerant recovery, recycle, reclaimed**
 - *Identification & purity*



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Classification

Refrigerant Classification

As per Figure 1103.1 Commentary & ASHRAE 15-94

↑	HIGHER FLAMMABILITY	A3	B3
	LOWER FLAMMABILITY	A2	B2
	NO FLAME PROPOGATION	A1	B1
		Lower Toxicity	Higher Toxicity

Increasing Flammability

Increasing Toxicity

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Application Requirements

- **1104.2 Machinery Room**
 - **Components to be located**
 - *Outdoors or in a machinery room*
 - *When exceeding amounts from Table 1103.1*
- **1104.3 Refrigerant Restrictions**
 - **Restriction of**
 - *Application & refrigerant quantities*

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Testing

- **1108.1 General**
 - **Any part erected on the premises**
 - *Not listed, labeled and factory tested*
 - *Shall be tested after completion of installation*
- **1108.2 Test Gases**
 - **Inert dried gas only**
 - *Nitrogen & Carbon Dioxide*
 - **No oxygen or air**
 - *Except air in an ammonia system*

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Problem #22

- *A contractor is working on changing out the refrigerant for a frozen food plant from (R-502/ 45 pounds) to an Isobutane mixture R-600a refrigerant.*
 - **Is notification of the code official necessary?**
 - *What code section?*

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Answer To Problem #22

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Hydronic Piping

- **Made Up Of**
 - **Hydronic systems part of**
 - *Heating*
 - *Ventilation & AC*
 - **Including**
 - *Steam, Hot Water, Chilled Water, Steam Condensate, Ground Source Heat Pump*

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Table 1202.4 Hydronic Pipe

MATERIAL	STANDARD
BRASS PIPE	ASTM B 43
BRASS TUBING	ASTM B 135
COPPER OR COPPER-ALLOY PIPE	ASTM B 42; ASTM B 302
CROSS-LINKED POLYETHYLENE (PEX) TUBING	ASTM F 876; ASTM F 877

NOTE: *Representative of Table 1202.4*

Table 1202.5 Hydronic Pipe Fittings

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Hydronic Installation

- **1204.2 Required Thickness**
 - **Piping insulation thickness as per IECC**
- **1205.1 Where Required**
 - **Valving to be installed as for**
 - *Heat Exchangers*
 - *Central Systems*
 - *Pressure Vessels*
 - *Pressure Reducing Valves*
 - *Equipment & Appliances*
 - *Expansion Tanks*

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Problem #23

- **On inspection of a Ground Source Heat Pump Loop, the pressure test has been done with water at 120 psi for 15 minutes.**
 - **The contractor has made the statement that since the test pressure was increased, the time limit can be decreased!**
 - *Is this test according to the code requirements?*
 - *What code section*

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● ● ● **Answer to Problem #23**

Pond Or Lake Closed Loops

● ● ● **Fuel Oil Piping & Storage**

1301.2 Storage & Piping Systems

- **Storage systems to comply with**
 - *IFC, This code*
 - **101.4.8 Oil-burning Equipment, Piping & Storage**
 - **Of the International Building Code / CT Supplement**
 - Pursuant to CGS 29-316 & 29-317

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● ● ● **Fuel Oil System Installation**

- **Pipe Sizing**
 - **Supply Line**
 - *3/8 inch internal diameter*
 - **Nominal Piping**
 - *3/8 inch outside diameter tubing*
 - **ACR tubing**
 - **Return Line**
 - *1/4 inch internal diameter*
 - **Nominal Piping**
 - *5/16 inch outside diameter tubing*
 - **ACR tubing**

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The future flows

Approvals For Fuel Oil Propane or Gas Fuel Lines

- Flexible braided PVC jacket fittings without damage to head of the fitting while maintaining superior tensile strength.
- Coating in flame retardant, fungus, acid and moisture corrosion resistant substance for direct burial.
- Standard, flexible copper fitting approved for use by all companies.
- Available in 1/2" OD with a protective coating of .031 wall, 3/4" OD with a .044 wall and 1" OD with a .053 wall.
- Connections with standard Rite fittings. Connectors heat sealed kits available for existing joints.

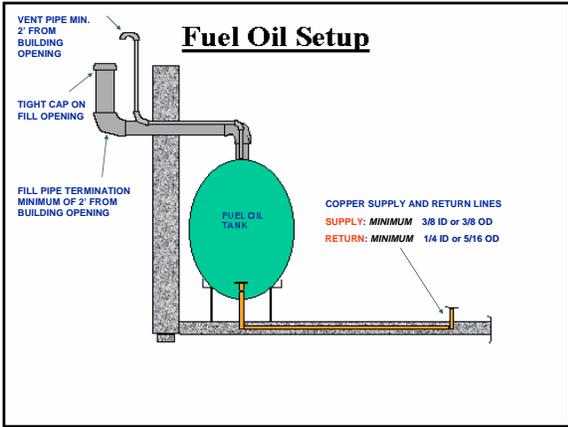
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Problem #24

- On inspection of a fuel oil tank and piping system, you find that the supply and return lines are 1/2 inch OD
 - Does this installation meet code requirements?
 - What code section

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● ● ● | **Answer to Problem #24**

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● ● ● | **Solar Systems**

○ **Solar energy equipment must be accessible to facilitate:**

- **Inspection**
- **Service**
- **Repair**
 - **Equipment Replacement**

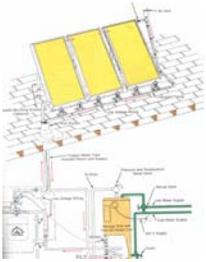


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● ● ● | **Heat Transfer Fluids**

○ **Regulated For**

- **Fluid or Gas**
 - **To Be Non-Flammable**
- **Flash point**
 - **Not less than 50 degrees F.**
 - **Above design maximum (no-flow) temperature**



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● ● ● **Collectors & Storage Units**

- **To Be Individually Listed, Labeled**
 - **To contain label showing**
 - *MFG name, model number and minimum & maximum operating*
 - *Temperature and pressures*



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● ● ● **Problem #25**

- **You are doing your inspection of a new solar installation. On a check of the collector tag, you find that the system is using a new transfer fluid of *Liquified Propane* due to its exceptional heat transfer ability.**
 - **Does this installation meet code requirements?**
 - *What code section?*



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● ● ● **Answer to Problem #25**



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Summary

- *We have looked at each chapter of the 2003 IMC*
 - **By inserting potential problems**
 - *You have had the opportunity to use your acquired knowledge & skills*
- **Proper code application and enforcement**
 - **Is based upon**
 - *Proper use of the code book*
 - *Ability to find code sections that apply to the question*

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QUESTIONS???



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