

**Refrigeration
Requirements**

**Self-Certification
Training Class**

Refrigeration Requirements

Presented by:

Ron Gardner

Refrigeration Inspector



**Refrigeration
Requirements**

OVERVIEW

- Permit Application
- Plan Detail
- Common Corrections
- Questions & Answers



Refrigeration Requirements

- Contractor's letter
- Variance letter if using alternate refrigerant
- Variance for city water usage (see 13-192-690)
- Copy of CFC Certification/ EPA Certification



Refrigeration Requirements

- Layout of all equipment
- Refrigerant piping
- Condenser water piping (if used)



Refrigeration Requirements

REFRIGERATION SCHEDULE

Refrigeration

These Refrigeration Notes must appear on Mechanical Page:

- Install pressure relief valve on high pressure side of system, upstream of any intervening valves
- Remove expansion valves, devices, and connections from air stream
- Refrigeration piping to type "K" copper or Type "ACR" copper
- All connection and devices to be brazed

Sample Schedule

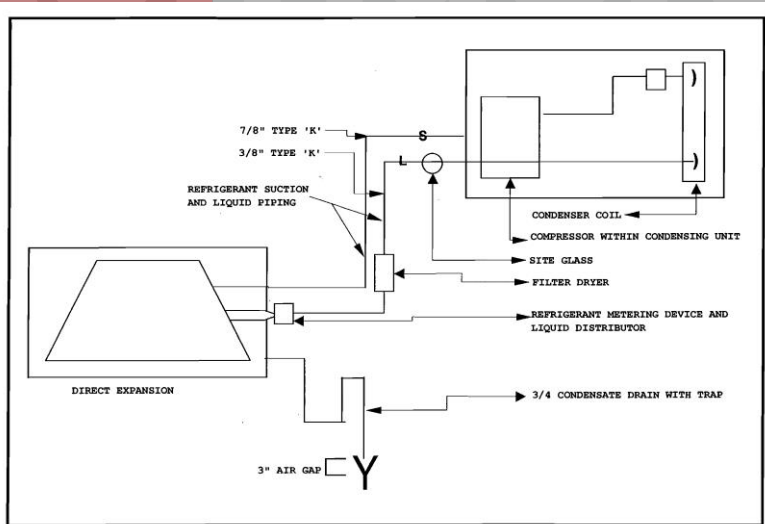
REFRIGERATION SCHEDULE

Tag # Unit #	No. Units	Total # of Comp. each	Comp /Ton	Comp/HP	Refrigerant	Wt. Ref	Remote	Self- Contained	Location	Air Cooled	Water Cooled



Refrigeration Requirements

REFRIGERANT PIPING DIAGRAM



Refrigeration Requirements

- Install pressure relief valve on high pressure side of system, upstream of any intervening valves
- Remove expansion valves, devices and connections from air stream
- Refrigeration piping top be type "K" copper or type ACR
- All connections and devices to be brazed



Refrigeration Requirements

SUMMARY

- Refer to the mechanical refrigeration section of the municipal code 18-28 Article 11.
- Add notes.
- Complete the refrigeration schedule and submit a refrigerant piping diagram.
- Feel free to call with questions 312-744-7694.

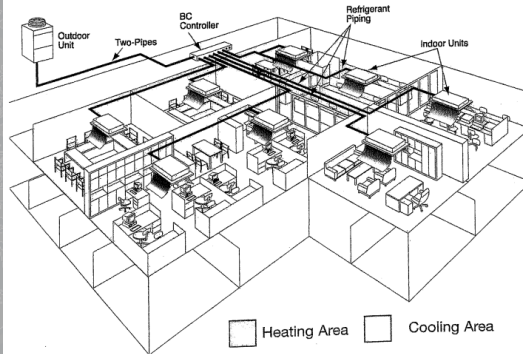


Refrigeration Requirements

HEAT RECOVERY

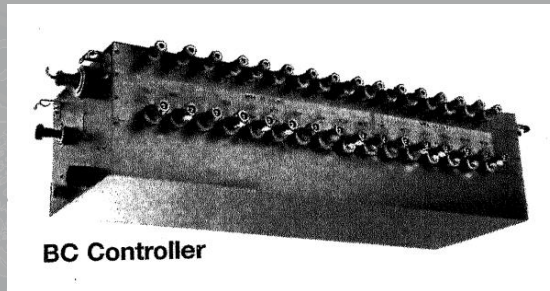
Heat Recovery (R2-/WR2-Series)

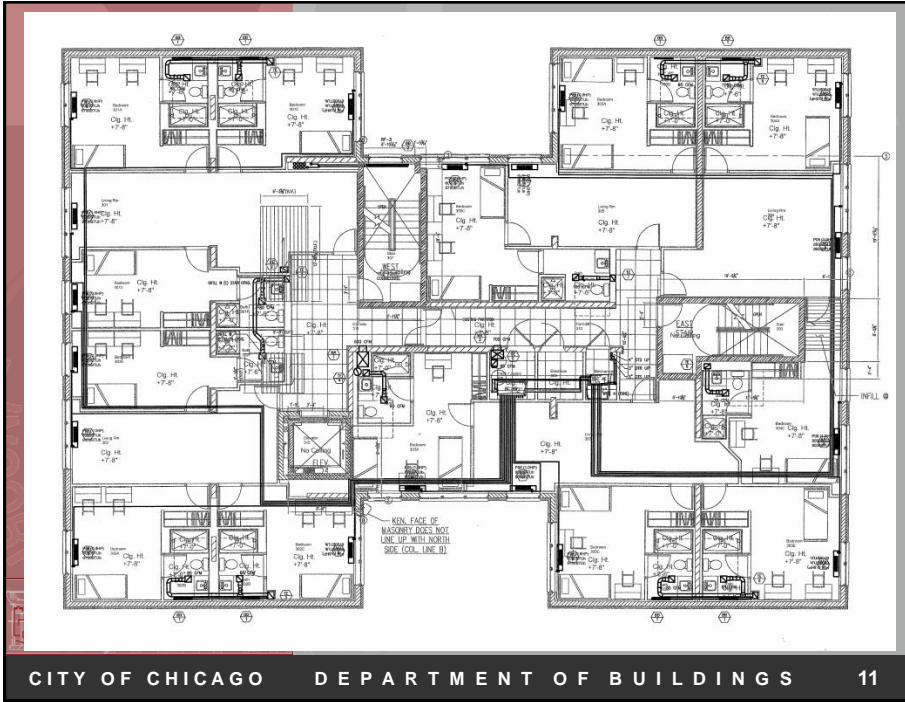
Simultaneous cooling and heating



Refrigeration Requirements

BC CONTROLLER





Refrigeration Requirements

RECENT CLARIFICATION MEMOS

- Gas Distribution Piping Inside of Buildings

CITY OF CHICAGO DEPARTMENT OF BUILDINGS

**Refrigeration
Requirements**

Ron Gardner
Refrigeration Examiner
312.744.7694

Stephen McGann
Refrigeration Examiner
312.744.6488



**Refrigeration
Requirements**

**QUESTIONS
&
ANSWERS**

