

U.S. Department of Labor Employment and Training Administration Office of Apprenticeship Training, Employer and Labor Services (OATELS) Washington, D.C. 20210	<u>Distribution:</u> A-541 Headquarters A-544 All Field Tech A-547 SD+RD+SAC+; Lab.Com	<u>Subject:</u> National Guideline Standards of Apprenticeship Grinnell Fire Protection Systems Company-- Adding New Occupation <u>Code:</u> 400.1
Symbols: DSNIP/FDK		Action: Immediate

PURPOSE: To transmit to the Office of Apprenticeship Training, Employer and Labor Services (OATELS), Bureau of Apprenticeship and Training (BAT) Staff the addition of a new occupation to the National Guidelines Standards for Grinnell Fire Systems Company.

BACKGROUND: Grinnell Fire Protection Systems Company, National Guideline Standards for the occupation of Sprinkler Fitter was registered on December 16, 1999.

The occupation of Protective Signal Installer (Security and Fire Alarm System Installer) has been certified and added to the existing National Guideline Standards for Grinnell Fire Protection Systems Company.

ACTION: BAT staff should familiarize themselves with the attached work process schedule for the occupation.

Attachment

NOTE: This Bulletin is being sent via Electronic-Mail (E-Mail). Bureau State Directors should provide copies to their SAC partners as appropriate.

**NATIONAL
GUIDELINES FOR
APPRENTICESHIP STANDARDS**

developed by

GRINNELL FIRE PROTECTION SYSTEMS COMPANY

National Headquarters: Houston, Texas

for the occupation of

SPRINKLER FITTER

**Added Occupation: PROTECTIVE SIGNAL INSTALLER
(SECURITY AND FIRE ALARM INSTALLER)**

Developed in cooperation with the
Bureau of Apprenticeship and Training
U.S. Department of Labor

APPROVED AND CERTIFIED BY THE
UNITED STATES DEPARTMENT OF LABOR
APPRENTICESHIP TRAINING, EMPLOYER AND LABOR SERVICES

By:



**ANTHONY SWOCPE, ADMINISTRATOR
APPRENTICESHIP TRAINING, EMPLOYER AND LABOR SERVICES**

ORIGINAL CERTIFICATION DATE: December 16, 1999

NEW CERTIFICATION DATE: July 12, 2000

TRADE SCHEDULE FOR: PROTECTIVE SIGNAL INSTALLER O*NET CODE # 47-2111.00

This trade schedule supplement is attached to and a part of the Apprenticeship and Training Standards for the above identified occupation.

1. TERM OF APPRENTICESHIP (Section V)

The term of apprenticeship shall be a period of not less than 8000 hours of reasonably continuous employment and training on the job, supplemented by the required hours of related technical instruction.

2. RATIO OF APPRENTICES TO JOURNEY WORKERS (Section IV)

The ratio shall be one apprentice to each journey worker on the job site. No apprentices may be employed on a jobsite where there is no journey workers employed. Only that number of apprentices will be employed as can be given proper supervision, training, continuity of employment and provided a safe and healthful work place.

3. APPRENTICE WAGE SCHEDULE (Section VIII)

Wage increases will be granted upon the successful completion of both the on-the-job training and the related instruction. Apprentices shall be paid a progressively increasing schedule of wages based on a percentage of the current journey worker wage rate, as follows:

1st period - (1000 hrs) - 50%	5th period - (1000 hrs) - 75%
2nd period - (1000 hrs) - 55%	6th period - (1000 hrs) - 80%
3rd period - (1000 hrs) - 60%	7th period - (1000 hrs) - 85%
4th period - (1000 hrs) - 70%	8th period - (1000 hrs) - 90%

4. SCHEDULE OF WORK EXPERIENCE (Section X)

(See attached Trade Schedule.)

5. SCHEDULE OF RELATED INSTRUCTION (Section XI)

(See attached Course Outline.)

6. SCHEDULE OF WORK EXPERIENCE (Section X)

<u>WORK PROCESSES</u>	<u>APPROX. HOURS</u>
a. Blueprint Reading	400
b. Install Boxes and Fittings	400
c. Install Anchors and Fasteners (installs cable, conduit and panels to walls and ceilings)	400
d. Bend Conduit	400
e. Install Low Voltage cable	2000
f. Install Relays and Timers	600
g. Terminate Conductors	500
h. Project Planning, Survey and Layout Systems	800
i. Install & Program Fire Alarm Devices & Panels	1100
j. Install Security Devices (Video cameras, electronic locks, card access...)	200
k. Voice and Data Systems	100
l. Test Systems	500
m. Repair and Troubleshoot Systems	600
TOTAL	8000

7. SCHEDULE OF RELATED INSTRUCTION (Section XI) NATIONAL CENTER FOR CONSTRUCTION EDUCATION AND RESEARCH

RELATED INSTRUCTION CURRICULUM
PROTECTIVE SIGNAL INSTALLER

<u>FIRST YEAR</u>	<u>Approx. Hours</u>
Introduction to the Trade	10
Basic Safety	15
Basic Math	15
Power Tools	5
Hand Tools	10
Blue Prints	7.5
Rigging	20
Construction Materials/Methods	15
Pathways and Spaces	15
Fasteners and Anchors	5
Hand Bending	7.5
Electrical Safety	12.5
Electrical Theory1	<u>7.5</u>
	145

<u>SECOND YEAR</u>	
Electrical Theory 2	12.5
Electrical Blueprints	7.5
Voice and Data Systems	25
Craft Related Math	7.5
Switches and Timers	10
Terminate Conductors	15
Basic Electronics	10
Introduction to Codes and Standards	10
Power Quality & Grounding	20
Electrical Test Equipment	15
Low Voltage Cabling	<u>20</u>
TOTAL	52.5

<u>THIRD YEAR</u>	<u>Approx. Hours</u>
Cable Selection	15
Busses and Networks	25
Fiber Optics	20
Video Systems	15
Project Plan, Site Survey, Documentation	15
Maintenance and Repair	15
Wireless Signal Communication	15
Computer Applications	20
Supervision	<u>15</u>
TOTAL	155

FOURTH YEAR

Fire Alarms	40
Security	30
Programmable Logic Control	30
Energy Management Systems	15
Sound & Signal	20
Preaction/Deluge Sprinkler	<u>39</u>
TOTAL	174