RECOGNITION OF HEALTH HAZARDS

a. Any process involving combustion should be looked at to determine what byproducts of the combustion may be released to the environment and how high the burner noise may be.

b. Any process involving high temperature, with or without combustion, should be questioned as to the possibility of excessive heat on the employees, either as the result of high ambient temperature or of excessive radiant heat.

c. Any process involving induction heating, including microwave, should be questioned as to heating effects on the employees and as to noise levels, including ultrasonic effects.

d. Any process involving the melting of metal should be studied for toxicity of the metal fume or dust produced.

e. Any process involving an electric discharge in air should be examined for the possibility of production of ozone and oxides of nitrogen. If it is an arc or spark discharge, the effects of the radiation from the flame and the products of destruction of the electrodes should be investigated. Processes of this sort also commonly involve hazards of high potential electrical circuits of low internal resistance.

f. Any process Involving an electric discharge in vacuum is apt to be a source of ionizing radiation and to Involve high potential. Such processes include all high powered oscillating circuits, x-ray units, electron beam equipment, and similar devices.

g. Grinding, crushing, or comminuting of any materials involves the hazard of dust of the material being treated and of the grinding materials.

h. Conveying, sifting, sieving, screening, or bolting of any dry material presents a dust hazard.

i. Mixing of dry material presents a dust hazard.

j. Mixing of wet materials presents possible hazards of solvent ,vapors, mists, possible dust, and noise.

k. Wet grinding of any material will have possible hazards of mist, dust, and noise.

l. Dry grinding operations, including milling and sand blasting, should be examined for dust and noise hazards.

m. Cold bending, forming, or cutting of metals or nonmetals should be examined for hazards of

contact with the lubricant, inhalation of lubricant mist, and excessive noise.

n. Hot bending, forming, or cutting of metals or nonmetals may have the hazards of lubricant mist, decomposition products of the lubricant, contact with the lubricant, heat (including radiant heat), noise, and dust.

o. Handling of small parts present hazards of repeated motion and mechanical shock.

p. Coating operations, generally preceded by solvent degreasing.

(1) Electroplating-toxicity of the various metallic salts acids, and alkalis both by skin contact and by inhalation. Particularly well known are nickel and cobalt as causes of dermatitis, chromium for production of nasal ulcers, and alkaline cleaning baths as irritants to eyes and upper respiratory system.

(2) Painting should be examined for the possibility of hazards from inhalation and contact with toxic and irritating solvent and inhalation of toxic pigments.

(3) Ceramic coating presents the same hazards of toxic pigments as painting plus hazards of heat from the furnaces, and from the hot ware.

(4) Mechanical coating with metals presents hazards of dust and fumes of metals and fluxes in addition to heat and radiation.

q. Explosive processing will involve gases from the explosive, largely carbon monoxide and oxides of nitrogen, and dust from the material being processed.

r. Warehousing should be checked for carbon monoxide and oxides of nitrogen.