MANAGEMENT ASPECTS

815 Organizational Health and Executive Development. C. Argyris. Advanced Management 24, 8 (Dec. 1959).

The author is concerned with the fact that executives place emphasis on end-products such as high morale, loyalty, and interest in the company rather than on organizational processes. According to his research, high loyality and high productivity are partially caused by the fact the employees are permitted to be non-involved and experience few contacts with management. He makes a plea for the process of increasing the healthy development of the total organization and says that it is a sick organization which would create the "organization man". It is argued that a healthy organization would stress individuality. In order to initiate the process toward organizational health, several steps are involved: first, to define what is to be included in the concept of organizational health; second, to translate this concept into actual behavior; third, to develop criteria to measure and evaluate the state of organizational health; and fourth, to apply these criteria to an executive development program or to other programs to see if they are contributing to organizational health. It is argued that changes may need to be made in the organizational structure, managerial controls, and leadership patterns, but it is also admitted that no concrete recommendations can be made in these areas at this time. It is further asserted that effective leadership is no different from effective living. Hence, the healthy leader grows and develops his own potentialities in such a way as to encourage relationships with others so that the process of growth and development takes place for all in the organization. Looking to the future, it is contended that personnel departments will be concerned with developing quality leadership and healthy organizations through the functions of research and training.

-- Cond. from J. Occ. Med.

816 Automation and Unemployment. W. Phelan. Illinois Labor Bull. 20, 14-15 (June 1960).

For decades industry has been highly mechanized but humans regulated the machines and controlled the input of variables. Today, machinery, which can control other machinery and regulate the input relationship of many variables, is available. The application of this new machinery in industry is called automation. Automation is primarily applicable in manufacturing, communication, and transportation industries, and in data processing (paperwork). If purchasing power can be maintained and at the same time automation is widely used, society as a whole is economically ahead. Automation produces goods cheaper in two ways. First of all, production costs are reduced. Labor, material, and indirect factors, as material handling are all utilized more efficiently. Secondly, the production of surplus is eliminated. Automation of data processing systems enables management to receive daily or weekly inventory reports from all sectors of the distribution channels. Hence, when the retail inventories of a particular item are growing too large, the manufacturer realizes this situation in days instead of months. Therefore, production will be immediately shifted to a more needed item. With automation productive capacity increases, and more goods and services can be produced and distributed. However, through the increase in productive capacity by application of automation, the right of those who may have become unemployed through the application of automation must not be ignored. In a few industries, automation may come abruptly. Nevertheless, the situation may be only temporary and as soon as the individual has adjusted to the circumstances, he will realize that he must shift to growing industries. During the transition period, he will get unemployment compensation, which in the State of Illinois is now $50 a week for a possible 26 weeks. Older workers who would find it difficult to switch to new industries usually will be kept in the present industry and used as a skeleton work force.

ACCIDENTS AND PREVENTION

817 A Power Plant Safety Program. W. C. Kramer. Coal Utilization 14, 21-22 (June 1960).

The prime requisite for a successful safety program is the enlistment of full cooperation from all plant employees. The author presents a program which does not use incentives or rewards and still has been highly successful. Before a safety program can get off the ground, the principles and objectives must be spelled out. The following could be called to a company's safety philosophy: (1) Every employee has a responaibility for safety. (2) Safety is an integral part of doing a job right and is made a vital part of all job training. (3) No job is so urgent or emergency so great that it cannot be taken care of safely. (4) Top management must be sincere and active in their pursuit of safety if such an attitude is to prevail. When this attitude reaches and is accepted by first line supervisors, the safety program works because employees adopt the attitude of those for whom they work. (5) Safety on the job and off the job are equally important. A proper attitude toward safety is a way of life.

818 Understanding the Electron. J. G. Huffman. Natl. Safety News 82, 38-39, 171-172 (July 1960).

Last year in the United States about 1,000 persons met death by accidental electrocution; another 5,000 received serious injury from electrical causes. Property damage ran into millions. Electron flow or movement along a conductor is called an electric current. A rate of 6×10^{18} electrons per second is equivalent to one ampere. When current flows, it releases energy. An electrical current of only 25/1000 ampere passing through the human body can be lethal. Fortunately, it usually requires considerably more, especially when the current path does not cross the heart or important nerve centers. Even though not lethal, serious burns can result where higher currents are involved. Three things are necessary for sufficient current to pass through the human body to be dangerous. First, the circuit has to be complete. The current must have points of contact where it can enter and leave the body. The second condition is that the voltage must be high enough to cause a large enough current to flow. Finally, the source must have the capacity to supply the current, whatever the voltage. The commonest situation which can provide the three necessary conditions for serious shock is contact with an ungrounded portable device, such as a hotplate, a stirrer, or a pH meter. These devices often develop an electrical path between the internal wiring and the frame. If this path is a metallic one, it's called a short; if it's due to dirt or a breakdown of insulation, it's called a leak. In either case, the frame of the device would be hot electrically to ground. This hazard can be almost completely eliminated by the use of a 3-wire receptacle, plug, and cable. Heating tapes with thin porous insulation represent a class of potentially hazardous devices which cannot be made safe easily. Leakage sometimes exists from the heating wire in the tape through the insulation to the surface. It can be due to the insulation being worn thin or to some conducting material having soaked into it. There is no metal frame to ground, so a third wire is of no value. Other precautions to be observed in handling electrical equipment in the laboratory are discussed by the author.

MISCELLANEOUS

819 Industrial Waste Disposal Tailored to Stream Flow. C. J. Velz. Proc. Am. Soc. Civil Engrs., J. Sanitary Engr. Div. 85, No. SA6, Pt. 1, 95-109 (Nov. 1959).

Recognizing the technical and economic limitations of waste treatment in maintaining satisfactory stream conditions during drought season, two possibilities for more efficient utilization of water resources hold promise. Either the stream flow should be regulated to make a higher level of total flow useable; or the industrial waste discharge should be regulated, tailored to the varying pattern of stream flow. A detailed case analysis of the latter, regulating release from waste storage lagoons in accord with the varying waste assimilation capacity of the stream, indicates industrial expansion potential 10 to 50 times that possible under drought flow conditions. -- Public Health Engr. Abstr.

820 Treatment of Phenolic Effluents. D. A. Hall and G. R. Nellist. J. Appl. Chem. (London) 9, 565-576 (Nov. 1959).

The following methods of disposal and treatment of phenolic liquors from coke oven plants are studied: (1) Direct use on froth flotation media in coal washing plant. The coal absorbs 60% of the phenols present, but only half the normal output can be used in this way. (2) Chemical oxidation of the phenols by ozone. This is satisfactory for dilute liquors (100 ppm of phenols) but is too costly for spent ammoniacal liquors. (3) Biological oxidation. The activated sludge process is satisfactory but somewhat expensive. An enclosed percolating filter containing coke activated with soil organisms gave promising results. (4) Extraction of phenols. The use of light creosote oil in a rotating disc extractor gave promising results. For liquors rich in phenols, the procedure recommended is method (4) followed by methods (3) or (1) and then method (2) if desirable. Final effluents with 10 to 50 ppm of phenols can be obtained. -- Public Health Engr. Abstr.

INDEX