## FACTORS ANALYSIS ON IMPROVING THE PRODUCTIVITY OF THE NONFERROUS METALS INDUSTRY<sup>®</sup>(2)

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China National Nonferrous Metals Industry Corporation (Continued from THE TRANS. NFsoc, 1993, 3(1): 83–90 and 94)

Our research and investigation proves that the growth rate of the productivity of the nonferrous metals industry is much lower than that of investment, and that the potential for increasing productivity is very great, in spite of the complicated influence of multiple weak joints restricting the increase of the productivity. To solve these problems, following policies should be adopted.

(1) A productivity increase campaign should be launched, and we should change our thoughts and ideas and let the goal of promoting economic growth consist in increasing productivity.

There have already been some model that increase economic growth through promoting produtivity increases. Baiyin Nonferrous Metals Corporation has applied the productivity theory to production and has put forward 93 concrete measures, when applied in 1991, these measures brought about an increase in profits of 22 million RMB yuan. Zhu Zhou Cemented Carbide Factory experienced an increase in profit of 8 million RMB yuan through improving the use of labor, instruments and funds in the production process after the analysis of factors such as costs, materi-

al consumption, energy consumption, the rate of recovery, the qualified product rate. In addition some highly productive countries have achieved obviously positive results through earrying out productivity movements in order to strengthen people's sense of productivity. Various facts prove that productivity eampaign can directly translate into economic improvements.

(2) A new administrative system of three levels and three centers should be established against the inner productivity-restricting factors for adjusting the structure of the organizations.

The increase of productivity in the nonferrous metals industry is rather slow, because the inner organizational structure prevents the development of productive forces. For the sake of the long-term development in the nonferrous metals industry and based on study of the administrative systems of both domestic and foreign nonferrous metals industries, China National Nonferrous Metals Industry Corporation has decided to put into force the "three-levels and three-centers" administrative system to solve the deep contradictions in the current system. The three levels and three centers refer to the first

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level—the national corporation itself, which is the center of investment and policy-making; the second level—several dozens of nonferrous metals corporations, which are the centers of management and interests; the third level—the factories and mines attached to the united corporations, which are the centers of the costs of production. With the three-levels and three- centres design put into effect, the overall efficiency will be greatly improved.

(3) The industrial administration and the adjusting and controlling forces inside the industry should be strengthened.

With the economy developing too fast and out of control, small scale smelting and processing have arisen everywhere, which has caused competitive strife for raw materials, the low profitable mineral consumption, the unplanned mining, the destruction of mineral resources and so on. All these problems have greatly hindered the increase of the industry's overall efficiency. Therefore it becomes particularly important to reinforce the industry's administration and practice microcontrol. To fulfill the role of the industrial administration and achieve the goal of microcontrol, we need not only fulfill the policies by administrative means but also restrict by economic means, the economic activities which counter the policies of the nonferrous metals industry. Thus we can prevent the harming of the national interests.

(4)A system of checks and evaluations of productivity targets should be implemented according to the characteristics of production and management in the nonferrous metals industry.

As a means of microcontrol, checking has a particular function and application in planned commercial economy. At present the checking targets which the departments of the nonferrous metals industry employ are mainly caused on output value, output and rate of development, these checking targets can hardly lead the enterprises to a model of management efficiency from

one of speed. In the industrial departments, the economic efficiency is directly reflected in productivity. Undoubtedly, the emphasis on productivity targets in the checking system will play an important role in guiding the enterprises towards economic efficiency in the course of production and management.

(5) Scientific and technical advances should be fully utilized to reinforce the enterprise administration and decreases in costs of production.

Decreasing costs are the embodiment of the effects of productivity-increasing mearsures. In the overall condition of the nonferrous metals industry, the most serious problem is that of costs. During 1984~ 1989, when the production costs increased at a rate of 13. 8 percent each year. From the point of view of the current production situation, there are two measures for decreasing costs, one is to make the most of scientific and technical advances, the other is to reinforce the administration. With respect to scientilie and technical advances, we should make great efforts to disseminate and apply the achievements in scientific research, and the emphasis should be placed on these critical techniques which can be widely used in the copper, aluminum, lead and zine industries so as to stimulate and bring about the technical advance of the whole industry. Although the administration of enterprises in the nonferrous metals industry has been strengthened in recent years, the potential to decrease costs through improving administration is still great. In many of the present enterprises there exist lax discipline, high consumption, serious waste, variety of loopholes and a phenomena of dirty, disorderly and badwork sites. All these problems should be under untirring attention.

(6) The product structure should be adjusted and turned to the production of products with high attached value.

Throughout its history, the nonferrous metals industry has set its focus mainly on producing

raw materials. Over a long period the prices of the primary products have been too low, which makes the economic interests of primary production shift progressive production and causes serious inadequacies in investment in the production of primary products. Many steps in the process from raw materials to finished products are closely connected. It would lead to contradictions in economic interests if the flow of the production process was cut off. In recent years small scale processing has arisen in many places. It is, of course, partly owing to the administration, but the most important reason is that large scale processings haven't formed on a monopoly scale and, therefore, cannot check the rise of small scale processing.

The economic interests of the production of primary products shifts to that of progressive products. It is the reality of the nonferrous metals industry, and it is also a natural law of production in economic activities. In order to get unending development, the nonferrous metals industry must turn to the production of products with high attached value.

(7) Technical innovation must be reinforced.

Technical innovation has played an important role in the development of the nonferrous metals industry. According to statistics, since 1983, two-thirds of the increased output and half the inccreased profit of 10 nonferrous metals in our country have resulted from technical innovation. Technical innovation requires little investment but offers quick and great returns. Generally speaking, the time taken in remodelling a project is only half of that needed to build a new project of the same scale of production. What is more, the remodelled project can be put into full production half a year after the remodelling, while a newly established project usually takes three to five years to reach the full scale production as designed. The profit on remodelled proj-

cets are usually about 30 percent, twice that of new established projects. Just on account of the actual economic profit, we should pay great strategic attention to technical innovations in the nonferrous metals industry.

(8) Reform must be intensified and the management mechanism should be changed in order to reinforce the animation of the enterprises.

The change of management mechanism should be carried out as an intensification of reform, taking into account the characteristics of the nonferrous metals industry, we should focus on perfecting the management contract system to practise the scheme of decreasing costs and improving productivity, Taking advantage of scientific and technical advances to reinforce technical innovations, carrying out systemized reform in personnel, work and salary, to develop various businesses, giving special policies to special districts and new enterprises, gradually establishing a unified market system for the nonferrous metals industry so as to take advantage of the combination of a planned economy and market economy, giving full play to the advantages of industrial trade corporations and carrying out internationalized management.

(9) The system of foreign trade should be adjusted and the conditions created to expand internationalized management.

With the channel of contacts with foreign countries widening, the domestic markets and the foreign markets will become closely connected, this will push the production and consumption of nonferrous metals into a broader world. Therefore the domestic supply and demand will be substituted by an international supply and demand, and the change in the prices of the domestic market will be in agreement with those in the prices in the international market. Under such circumstances, it is an inevitable consequence that internationalized management be expanded. International trade is the major content of internationalized management.

(10) The prices of nonferrous metals should

be adjusted and conditions created to cast off the restrictions on prices.

The nonferrous metals industry is a raw matenal-producing department, the current price system is very unprofitable to its production and management. To solve the problem of the unreasonable prices in the nonferrous metals industry, the best way is to adjust the organizational structure, unite the departments of mining, smelting and processing and practise business accounting inside the union. As to the unreasonable prices caused by factors outside the nonferrous metals industry, the solution is to practise a policy of combined adjustment and release, and thus let them rise and fall around their own value on the market. As to copper, aluminium and zinc which account for 85% of the command plan of the nonferrous metals in-dustry, the main way is to make their prices gradually close to those of the market. As to protoactinium, antimony, mercury and titanium whose supply can basically meet demand, we should release the restrictions on their prices as soon as possible. After easting away the restrictions on prices, we should carry out an adjustment of the market, along with the increase of national reserves and reinforce the adjusting function of the China National Nonferrous Metals Industry Corporation.

(11) The characteristics of the nonferrous metals industry must be taken into account to ensure its position at the vanguard of geological work and the basic positions of mines.

The development of the nonferrous metals industry is based on mines, and the development

of mines depends on geological work which currently lacks funds and is experienced decrease in investment for mineral-prospecting work. The geological work in some key mines can't be guaranteed. In addition, most instruments employed now are rather old, therefore the mineral prospecting efficiency has decreased. The mineral enterprises which are closely connected with geological prospecting meet with even greater difficulties and suffer increasing losses every year. In 1990, 39 of the 82 mines and integrated complexes directly under the China National Nonferrous Metals Industry Corporation suffered losses, the total cost reached 130, 89 million RMB, which was 72, 05 million RMB yuan more than that of the losses in 1986.

For the development of the nonferrous metals industry, it is inevitable that geological prospecting serves as the vanguards and mines as bases. Considering the difficulties experienced the departments of geological prospecting and mineral exploitation, in carrying out that strategic policy, we should, on one hand, try our best to eliminate the factors disadvantageous to production and strengthen the programming and management of the mineral resources and the market in order to prevent the illegal flow of the nonferrous mineral products; on the other hand, our national government should formulate a policy favourable to geological prospecting and mineral exploitation, such as granting low interest loans or interest-free loans, favourable taxes.

(The end)