

Nuclear energy pivot of five-year plan

by Rachel Douglas

An economic strategy based on an “infinitely developing nuclear power industry” was the most important policy adopted by the just-ended 26th Communist Party Congress of the Soviet Union. The Soviets have decided that nuclear-powered, high-technology industry is indispensable for economic health and for a fully adequate military defense.

President Leonid Brezhnev and Prime Minister Nikolai Tikhonov gave the Party Congress the core of a development policy for 1981-90, which will determine the remainder of the century. Its main theme is raising labor productivity. Increased per capita energy throughput in the economy, industrialization of agriculture by creation of farm-factory administrative units or “agro-industrial complexes,” a possibly temporary shift to slightly higher rates of growth for consumer industries than for producer goods sectors—these are to offset an expected dip in young people entering the work force.

The attempt to stabilize and then raise the Soviet living standard is geared to increasing labor productivity. Tikhonov projected a rise in productivity of 17 to 20 percent during 1981-85, which would account for “no less than 85 to 90 percent of the growth of national income.” The Soviet drive for efficiency centers on high-technology industrial growth and R&D. Brezhnev proposed “regrouping of scientific forces,” while Tikhonov emphasized the improvement of scientific research for the economy.

Nuclear power and Siberia

The pivot of the Soviet economic strategy is the U.S.S.R.’s energy program, which Tikhonov stressed was under Brezhnev’s personal supervision. It provides for accelerated nuclear power development to the degree that nuclear and hydroelectric power will give over 70 percent of the 23 percent increase in electricity production in the next five years, and all of the increase in the populous industrial areas of European Russia.

In an article published Feb. 21, just before the congress opened, Academy of Sciences President and

party Central Committee member A. P. Aleksandrov described the energy program as a phased structural improvement of the power industry aimed at creating an “infinitely developing nuclear power industry.”

In the first phase, the U.S.S.R. will reduce domestic use of oil for power generation by a sharp increase in natural gas extraction, all of it in the abundant fields of the West Siberia industrial growth region. Oil today is burned to generate one-half of Russia’s electricity, but by the year 2000 it will be phased out and used only as a raw material for the petrochemicals industry. Aleksandrov stressed that the Soviets will be able to remain net exporters of oil to Eastern Europe and “certain other countries” for at least 30 years, and longer if special extraction technologies are employed.

But the planned increase in Soviet power production will come entirely from coal, with the application of advanced technologies like magnetohydrodynamics (MHD), and nuclear sources.

A 30-year transition to “a nuclear power industry suitable for the long term,” Aleksandrov said, would have several new components. In the immediate future, the new technology of the “nuclear thermal power station,” which generates both heat and electricity, will be built for heating Russian cities.

Next, Aleksandrov demanded speedy development beyond nuclear plants that consume uranium. This means building more nuclear fast-breeder reactors (the U.S.S.R. has two in operation already; the U.S. has none), which produce more fuel than they burn, and also fission-fusion hybrid reactors whose high-speed production of plutonium “will ensure any necessary rate of development of the nuclear power industry.”

Meanwhile, Aleksandrov said, an intense thermo-nuclear fusion power development effort will proceed in parallel and become ready to take over when feasible.

Science and industry

A flaw which could retard Soviet scientific progress was evident in several reports at the Congress: a demand that science be exclusively the handmaiden of industry. There are indications, however, that the high-technology direction of Moscow’s new Five Year Plan has opened the door for certain Soviet economists with a more advanced conception of science.

On Feb. 21, the Central Committee economic daily carried an article arguing that a “new, capital-intensive type of socialist expanded reproduction” was on the agenda. The author, Prof. V. Lebedev, is known for a ground-breaking August 1980 article in *Pravda*, where he insisted on “the fundamental achievements of science.” The developments that count, Lebedev said, are those that create a new dimension for the economy, one not predictable by planners working within an existing technology structure.