

fining, and steel buildup during World War II. Unlike San Francisco, Oakland remained industrial well into the 1960s, and a major port for much longer. But by the end of that decade, the city's industrial base began to decline, a victim of the "Great Society" policy that reduced so many American manufacturing cities to dying shells.

Oakland's new leading "industry" became the illegal drug trade, and professional sports, the city's only claim to fame. Streets in Oakland are currently scheduled to be repaired once every 100 years!

Since the "Bush-Reagan economic recovery" began a decade ago, Oakland has lost a third of its manufacturing jobs, collapsing the tax base. Similar crises afflict Alameda County, of which Oakland is the largest city. The state of California became famous last spring for its \$14.3 billion budget deficit, triggering major cuts in services.

In the end, austerity didn't even save Oakland money. The city estimated it had spent \$10 million fighting the fire, and that it would lose at least \$5 million in property taxes. At least several million more dollars will be spent to prevent the soil from the fire-ravaged hills from becoming mudslides.

The Oakland fire also proved that one cannot ruin part of a city—or country—and keep a protected wealthier enclave. For years, Oakland has been two cities—the flatlands where mostly black people live, ravaged by budget cuts and drug wars; and the hills, a rich enclave, insulated from the city's decay. Or, so they thought.

Will things change?

Has the lesson that budget cuts kill, been learned? Apparently not. The media are flooded with titillating stories about where the fire might have started, and who was really responsible for starting it. The question of what allowed the fire to spread has been all but ignored.

The cutbacks continue. After the fire, the California Department of Forestry announced that it is shutting down 31 fire lookouts—nearly half the state's lookout force, and removing the last fire spotters from Santa Clara, Santa Cruz, and San Mateo counties, areas experts say are vulnerable to the same fate as the Oakland-Eastbay hills.

The lesson that austerity kills should have been learned in the Oct. 17, 1989 San Francisco area earthquake. More than 40 people died when a section of double-decker freeway in Oakland crumpled. The necessary reinforcements, which would have prevented the collapse, had been scheduled for the early 1970s, but never constructed because of lack of funding.

At that time, rather than heeding the warning and reversing the budget cuts, federal government policy left the City of Oakland even poorer after the earthquake. The federal funds due to the city of Oakland from the Federal Emergency Management Agency (FEMA) to repay costs of responding to that emergency, have not yet been paid.

Energy output falls in Soviet republics

by William Engdahl

Following the failed Moscow putsch of Aug. 19, the governments of the newly declared republics of the former U.S.S.R. have placed the question of reorganizing their energy output at the center of their deliberations. In light of recent stories of production collapse and disputes over western concessions to vast unexplored oil regions in the former U.S.S.R., it is useful to review the current situation.

In 1990, for the first time since the end of World War II, the production of primary energy (oil, gas, coal, etc.) in the U.S.S.R. declined in comparison to the year before. The amount of the fall (2.4%) was not as dramatic as were its qualitative implications.

The most dramatic decline in energy production in economic terms occurred in the production of petroleum. Together with export of natural gas, petroleum forms by far the major source for hard currency export earnings.

Since the late 1970s, the Soviet Union has been the world's largest single producer of petroleum. By the late 1980s the peak was reached of almost 12.5 million barrels per day (mbd) output. By comparison, the United States in 1988 was producing slightly more than 8 million, while Saudi Arabia produced less than 5 mbd. In 1990 total petroleum output from all U.S.S.R. oil fields, according to the state statistical agency Goskomstat, reached a level of 11.4 mbd, a decline of almost 750,000 barrels per day from 1989. The 1989 level itself was down from the peak production year of 1988. Oil output in 1990 fell to the level it had been back in 1978. In the first six months of 1991, partly because of the long and bitter wave of strikes in the U.S.S.R. coal mines, at times combined with strike actions in the oil regions, total petroleum production fell dramatically to 10.5 mbd, some 9% lower than in 1990, according to Goskomstat.

Why output is declining

The reasons for the secular decline in oil output are several and interconnected. First, Soviet oil comes primarily from large and rather old reservoirs, mostly in the West Siberian Plain—Samotlor in Tyumen being the largest, followed by Romashkino, a huge field lying between Sverdlovsk and Moscow. Samotlor, the largest in the U.S.S.R., has been

under exploitation since 1965, while Romashkino has been in service since 1948. Indeed, of the currently producing oil fields in the U.S.S.R., the vast majority of production, 85-90%, comes from fields in the Russian Federation. Large potential reserves do exist especially in Kazakhstan (Tenghiz) and in Azerbaidzhan (Baku), but these require substantial investment in new infrastructure and further exploration before they will be able to contribute significantly to overall oil production.

During 1986, OPEC oil prices plunged from approximately \$26 a barrel down to less than \$10 a barrel as Saudi Arabia, on request of Washington, flooded the world market with its oil. In a desperate effort to maintain hard currency oil export earnings, Moscow ordered oilfield output to be pushed to the breaking point, to compensate in quantity for the loss of hard currency export earnings. In the near term, the result was all-time high levels of production between 1986 and 1988, especially from the older large West Siberian fields. But soon after, the consequences of this desperation policy manifested themselves in collapsing well pressure, which meant falling oil output per well.

From bad to worse

But rather than utilize advanced western technologies for Enhanced Oil Recovery (EOR), still largely a novelty in the Russian reaches, or employing advanced three-dimensional seismic stratigraphic mapping technologies, now state of the art in all major western oil exploration companies, the Soviet Petroleum Ministry proceeded in a chaotic series of makeshift measures which served to turn a bad situation into disaster.

The central government in Moscow in 1988 deregulated the prices which manufacturers of oil drilling equipment could charge the State Petroleum Ministry. But, under domestic political pressure, Moscow refused to allow the Petroleum Ministry to increase the price it could charge for selling its oil.

The predictable result over the past three years has been a fall in the investment needed in equipment to develop new oil fields and to improve falling pressures in the older fields. Both problems are eminently solvable, and relatively quickly, given proper technology and expertise.

Older fields in worst shape

According to Goskomstat, most of the fall in 1990 oil production came from the older fields of the Tyumen province of western Siberia, from which the U.S.S.R. got more than two-thirds of all its oil. Since their peak output in 1988, the large Tyumen fields have lost more than 10% of their production. The collapse in oil production is also due to insufficient resources for making routine repairs and maintenance, leading to a series of dangerous and costly accidents and shutdowns of wells. By official estimates, 40,000 such pipeline accidents occurred last year.

Necessary development of new alternative oil fields, often far deeper (hence needing different equipment and costing far more than the older fields) and in more severe climate regions, ground to a virtual halt under the domestic economic chaos of the past 15 months. In 1990, under growing budget deficit pressures and runaway inflation, the Moscow government decided to halt investment in vital electricity and oil-refining projects and new geological exploration in Tyumen, making the chances for increased output out of the question for the present. While the Gorbachov government made some emergency modifications at the end of February 1991 to attempt to remedy the situation, indications are that little has improved to date.

Falling exports fuel liquidity crisis

The effect of all this on U.S.S.R. oil exports has been equally dramatic, one of the major background causes for the current liquidity crisis in the former U.S.S.R. According to the authoritative London oil industry trade monitor *Petroleum Argus*, total U.S.S.R. oil exports for the first six months of 1991 were down fully 30% compared with the period January-June of 1990. Sharpest cuts were in export to eastern Europe after the breakdown of the old Comecon trade rules and introduction of hard currency oil payments on Jan. 1, 1991.

In the first half of 1990 the Soviets exported a total of 3.18 mbd. In the same period this year, the figure has fallen to 2.22 mbd. While Argus estimates that export volumes will likely recover significantly during the second half of 1991 because of the resolution of the crippling miners' strikes of the early spring, the overall impact on Soviet earnings of desperately needed deutschemarks and dollars has been dramatic in the near term.

Furthermore, the situation which has affected availability of equipment and resources for increasing output in the petroleum sector, has also prevented increased output in export of natural gas. After reaching an all-time record production peak in 1990 of 815 billion cubic meters of natural gas, total output has for the first time in more than a decade stagnated. Since 1989 it has no longer been possible to compensate for falling oil output through increase of gas production.

Here as well, lack of repair, and hasty and cost-cutting pipeline construction pressures have led to dramatic and costly (in human lives as well) accidents in the natural gas pipeline distribution.

One considerable potential problem for any significant internal betterment of existing oil production in the new republics of the Union of Sovereign States is the fact that the vast bulk of oil field equipment and spare parts—60-70% by best western estimates—has historically been manufactured in the region of Baku in Azerbaidzhan. Unrest in this area and friction with the Russian authorities could lead to barriers to needed flow of equipment and spare parts more than has already affected oil output.