U.S. Labor Party Issues Energy Program; LaRouche Campaigns For Industrial Development

NEW YORK, Dec. 30 (NSIPS) — The U.S. Labor Party announced the publication of "A Program for U.S. Energy Development-1977" from its New York city headquarters today. The program emphasizes renewed development of the high technology Northeast region as a direct alternative to deindustrialization and systematic destruction of the region's scientific potentials posed by Wall Street's Carter Administration.

Lyndon H. LaRouche, Jr., U.S. Labor Party Chairman and designated presidential candidate for 1980, in his introduction of the pamphlet cites industrial policies that date from the American Revolution and outlines the basis of an alliance between present-day conservatives, pro-Constitution Democrats, and the USLP.

The program scores the Northeast-Midwest Economic Advancement Coalition (NMEAC) for its planned destruction of the region's aerospace and electronics industries. "The revitalization of the Northeast must take place from the present near threshold the U.S. industry has reached, automation of basic industrial processes and most importantly from the leap to a new energy source: controlled thermonuclear fusion."

The program defines competent educational policy exemplified by leading educational institutions from the post-revolutionary war period. "The Northeast developed West Point and the Massachusetts Institute of Technology, not just to defend the right of the new nation to exist but to provide the infrastructure for a growing industrial base."

Dr. Morris Levitt, Director of the Fusion Energy Foundation, will hold a midweek press conference next week in Washington D.C. to urge Congress to introduce legislation committed to the development of controlled thermonuclear fusion power. Simultaneously Labor Party spokesmen in 20 major cities including a dozen state capitals will also hold press conferences calling on state legislatures and local elected officials to memorialize energy development and the furthering of the U.S. infrastructure in their respective bodies. The Labor Party will campaign for the passage of the appropriate legislative measures which could mean the creation of four million new jobs within six months of the development policy's implementation.

Skilled workers, businessmen, technicians and industrial designers have indicated interest in the Labor Party pamphlet. Researchers connected to the now-stalled construction of nuclear plants in Indiana and Florida welcome the program as the basis to resume a fight they had deemed hopeless three years ago.

"A Program for U.S. Energy Development-1977" is scheduled for public distribution January 5.

The North American Labor Party (NALP) will initiate a drive to enact the "Canadian Fission-Fusion Development Project-1977" which will be released this week as a supplement to the U.S. Energy program. NALP organizers will bring this plan to the opening session of Parliament scheduled for mid-January in Ottawa.

"Tomorrow Is Knocking"

The following editorial appears in the December issue of Industrial Research *magazine, whose masthead reports it is "serving the $70 billion world-wide R and D industry." The statement reflects the widespread sentiment among industrial and technical personnel for the expansion of present energy resources, as part of a fully functional expanding industrial economy.*

Mankind has responded to the symbolism of opportunity knocking at the door many times in the past, and will have cause to do so in the future, but history is not likely to record a more opportune occasion for door opening than the one we occupy right now. History *will* record how well we respond to this occasion and whether we welcome opportunity in our generation.

The world was not ready for electricity when Ben Franklin worked out many of its principles in the 1950s. The world was not ready to use electricity when Edison and Tesla provided the basic applications for electricity almost 125 years after Franklin's work. Widespread use of electricity in the U.S. began some 170 years after we became acquainted with this power source. Many important technologies have taken years to reach general use, but others, such as the transistor, have proved that long gestations are not inherent in technological advances by moving rapidly from concept into our daily lives.

Technology moves in cycles, as do most important things, and the down cycle is the proper time to prepare for the next period of discovery and development. Things have been slow in the exciting development business recently. This slack time is just what we need to give us a running start on the hectic days that we can be certain are waiting for us in the future. Let it not be said that the society which dawdled for nearly 200 years over the application of electricity was guilty of a similar lapse in the use of superconductivity; and extended space travel, colonization, and manufacture. As did electricity, these technologies hold the prospect for tremendous change in our lives and economies, now and for centuries into the future.

Tomorrow belongs to those who prepare today. And the nature of tomorrow, even its time of arrival, are entirely in our hands. We can wait patiently for tomorrow to happen eventually and react to it when it does arrive, or we can prepare now to make it happen soon, and in *our* way.

Granted, we don't know all that there is to know about superconductivity or high-power lasers or extended space travel or controlled fusion or the potential impact of advanced computer capabilities, but we know enough that plans can be made. The implications for society and technology can be surmised. The needs as well as the opportunities can be foretold. University programs can be started now to produce expertise in these critical areas of social and scientific planning. Industry will want to have the capability and experience to implement these next great strides.

The theories have been derived. Technology is advancing in all of these areas.

Opportunity approaches our door.

Will we be ready for tomorrow?

Breakthrough in Understanding Plasma Structures

Exclusive to NSIPS

In the past five years, an increasing number of scientists have come to recognize that the new, unexplored frontier of science lies in the field of plasma physics. Because of the urgency of realizing controlled nuclear fusion, a technology based on plasmas, the scientific challenge of these frontiers assumes an even greater importance. In the last nine months there have been a series of theoretical advances in forefronts of research into "non-linear phenomena" in plasmas; one of these, which was published by G. Lamb, Jr. in Physical Review Letters last August, may be the first step in a profoundly significant attack on the problems of understanding plasmas.

The characteristic feature of non-linearity, in whatever field it appears, is "progress." In social systems, history is made by the steady development of new technologies, new concepts, and their applications. In the geological sciences, the "evolution" of the Earth has been a change from a uniformly hot, smooth planet, to the present world of highly differentiated atmosphere, climates, and elevations. A similar development is obvious in the biological sciences in the first origins of life from inorganic matter, and the subsequent coming into being of more and more complex living things, which make up a biosphere supporting greater and greater energy flows. For the first time in the physical sciences, plasma physics now seems to have demonstrated similar phenomena occurring in a collection of non-living matter.

A plasma is a gas which is so hot that the molecules in the gas have been split into their constituent atoms, and these atoms have then stripped of their electrons. The resulting matter is ionized and interacts with itself by means of electrical and magnetic forces, which are thousands of times stronger than the molecular forces that determine the properties of a usual gas. The key quantity in determining the astounding properties of a plasma is its "energy density," the amount of energy per unit volume that the plasma contains. The electromagnetic interactions and the high energy density of a plasma result in two quite extraordinary qualities:

1. The plasma has a tendency to evolve from states without order to states which have large-scale organized structures. An initially randomly forced plasma can, for example, spontaneously transform itself into a collection of large whirlpool motions. The spontaneous formation of vortices is a persistent feature of the natural evolution of a plasma.

2. This tendency toward the formation of large organized structures, like vortices, out of random motion in a plasma is a specific example of the striking characteristic of a plasma to concentrate its own energy. In the usual situation of a low-temperature gas, or, indeed, any low energy-density material, the energy available to it is distributed in a uniform way throughout its volume. But plasma, on the contrary, will bunch up the energy to the point that the energy density in one of the structures can be 100,000 times as great as the initial state — the ideal conditions for producing controlled thermonuclear fusion reactions.

A general theoretical concept of this sort of behavior does not exist at present, but the name given to this whole class of "anomalous" behavior is "non-linearity." This concept, while clearly important, is still in a formative stage. At this point it appears that the key to understanding non-linearity lies in understanding the tendency that highly energetic plasmas have for forming self-ordered structures. What seems to be required from an experimental and theoretical research program is a kind of zoology of these structures. With this zoology, the truly