This report provides information on Pakistan's nuclear power and potential weapons programs based on personal observations. Two enclosures.

1. The Karachi Nuclear Power Plant (KANUPP) and the Research Center near Islamabad are both in serious disrepair. At KANUPP, both turbine and generator control instruments are badly in need of maintenance or replacement. Because they were originally provided by Hitachi, Pakistan sought Hitachi's help and the latter sent two technicians to have a look at the equipment. Finally, however, because of the potential for applications to nuclear weapons production, Pakistan's failure to sign the nuclear nonproliferation treaty (NPT) and, in a Hitachi spokesman's words, "the desire not to become the next Toshiba" viz a viz the United States, Hitachi refused to assist in maintenance of the equipment.

2. Pakistan appears to have developed their own front-end fuel program, including discovery of their own in-country uranium sources. There are strong rumors among Japanese nuclear specialists that France secretly provided Pakistan with documentation on fuel enrichment. The question is where Pakistan would obtain spent fuel to be used in enrichment for weapons purposes? The spent fuel from KANUPP comes under international atomic energy agency (IAEA) accountability. Visitors to the nuclear research center near
ISLAMABAD WERE SURPRISED TO FIND THAT THE FACILITY WAS GUARDED BY ANTIAIRCRAFT WEAPONS. WHEN ASKED ABOUT THE NECESSITY FOR SUCH PROTECTION, THE ANSWER WAS TO GUARD AGAINST POSSIBILITY OF ATTACKS BY INDIA OR ISRAEL. SINCE THERE IS ONLY A FIVE MEGAWATT RESEARCH REACTOR AT THE FACILITY, THE RHEORITICAL QUESTION WAS WHY WAS THIS

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PROTECTION NECESSARY UNLESS SOME CLANDESTINE ENRICHMENT OR OTHER WEAPONS-RELATED RESEARCH WAS UNDERWAY.

3. (C-NF) THE JAPANESE SAY THAT THE ARREST IN THE U.S. OF PAKISTANI-CANADIAN ARSHAD FERVEZ FOR THE THEFT OF A SPECIAL STEEL USED IN NUCLEAR WEAPONS PROGRAMS IS FURTHER REASON TO BELIEVE THE PAKISTANIS ARE TRYING TO DEVELOP AN ENRICHMENT CAPABILITY.

4. (C-NF) PAKISTAN WILL HAVE SERIOUS PROBLEMS IN THEIR NUCLEAR POWER PROGRAM BECAUSE EVEN IF THEY HAVE STATE-OF-THE-ART EQUIPMENT THEY DO NOT HAVE THE EXPERTISE IN THE MAINTENANCE FIELD. THE PAKISTANIS THEMSELVES SAID THEY HAVE TEN TO TWELVE "UNPLANNED" SHUTDOWNS A YEAR - AT LEAST HALF ARE ATIBUTED TO MAINTENANCE PROBLEMS AND THE REST TO PROBLEMS IN THE POWER GRID. ON THE OTHER HAND, THEY DO HAVE ENOUGH THEORETICAL EXPERTISE TO PRODUCE NUCLEAR WEAPONS, BUT WITHOUT A GOOD SOURCE OF PLUTONIUM, OR THEIR OWN ENRICHMENT FACILITY, THE NUMBER OF WEAPONS THEY COULD PRODUCE WOULD BE VERY SMALL. EVEN IF THEY HAVE A LARGE ENRICHMENT FACILITY, SERIOUS MAINTENANCE PROBLEMS WILL EVENTUALLY ARISE.

5. (C-NF) THE JAPANESE ALSO THOUGHT IT STRANGE THAT NUCLEAR MEDICINE RESEARCH AND AN AGRICULTURAL RESEARCH PROGRAM WOULD COME UNDER THE ATOMIC ENERGY COMMISSION. THE REASON COULD WELL BE DUE

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TO EXTENSIVE RESEARCH INTO EFFECTS OF RADIATION FROM NUCLEAR ATTACKS - ALTHOUGH THERE WAS NOTHING CONCRETE TO SUPPORT THIS BELIEF. THERE IS ALMOST A PARANOIA, IN THE GOVERNMENT AND THE GENERAL POPULATION, ABOUT INDIA'S POSSESSION OF NUCLEAR WEAPONS.