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New York Times  
August 9, 2004

## **Rice Says Iran Must Not Be Allowed To Develop Nuclear Arms**

By David E. Sanger

KENNEBUNKPORT, Me., Aug. 8 - President Bush's national security adviser said Sunday that the United States and its allies "cannot allow the Iranians to develop a nuclear weapon" and warned that President Bush would "look at all the tools that are available to him" to stop Iran's program.

Condoleezza Rice, the national security adviser, said on the NBC News program "Meet the Press" that she expected that the International Atomic Energy Agency would make what she called "a very strong statement" in September forcing Iran to choose between isolation or the abandonment of its nuclear weapons efforts. But she stopped short of saying whether the United States could muster its allies to impose sanctions against Iran in the United Nations Security Council.

Until now, European powers and Russia have resisted American efforts to impose sanctions against Iran, which they see as a major trading partner.

Iran has insisted that its nuclear effort is entirely for the production of electric power, though the International Atomic Energy Agency, the United Nations' nuclear monitoring agency, has found evidence of covert efforts, stretching back more than 18 years, to produce highly enriched uranium suitable primarily for weapons production. A week ago, Iran's foreign minister, Kamal Kharrazi, said his country would resume producing parts for centrifuges, the equipment needed to enrich uranium, because European nations had not brought the Atomic Energy Agency's investigations to a close.

President Bush, who took a brief break from his re-election campaign to attend a family wedding here and visit his parents, said nothing in public on Sunday. He attended an early-morning church service, went fishing with members of his family and flew back to Washington, letting his aides take the questions about Iraq, terrorism, Iran and North Korea.

Ms. Rice was responding to an article in The New York Times on Sunday that said the Bush administration's flurry of diplomatic efforts during the past 20 months to stop the progress of nuclear weapons programs in Iran and North Korea had so far failed.

In a veiled reference to the Clinton administration, Ms. Rice said "these are problems that developed in 1990's." She contended that there had been "diplomatic successes" in organizing North Korea's neighbors to confront the problem and spurring action against Iran at the Vienna-based Atomic Energy Agency.

"It was, in fact, the president who really put this on the agenda in his State of the Union address, the famous 'axis of evil' address," Ms. Rice said. "And our allies have really begun to respond."

She declined to say whether the United States would support action by Israel, which says Iran's program poses a particular threat to its national security, to attack Iran's facilities the way it attacked the Osirak reactor in Iraq in 1981.

"I think that I don't want to get into hypotheticals on this," Ms. Rice said. "I do think that there are very active efforts under way, for instance, to undermine the ability of the Iranians under the cover of civilian nuclear cooperation to get the components that would help them for nuclear weapons developments."

She said Russia had declared that it would provide help to Iran only if it returned its nuclear fuel to Russia so it could not be diverted for weapons. "I think you cannot allow the Iranians to develop a nuclear weapon," she said.

"The international community has got to find a way to come together and to make certain that that does not happen."

Ms. Rice's answer about Israel was particularly notable because, in the period before the war in Iraq, she and other senior administration officials said history had vindicated the Israeli raid on Osirak. Had that attack not crippled Iraq's main nuclear reactor, they argued, Saddam Hussein might have had access to nuclear weapons before the Persian Gulf war in 1991.

But it is unclear that Israel has the military capacity to reach Iran's nuclear sites, which are much farther away and well hidden among cities.

<http://www.nytimes.com/2004/08/09/politics/09nuke.html>

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New York Times

August 7, 2004

## **Greenland Base To Be Upgraded As Part Of Missile Shield Plan**

IGALIKU, Greenland, Aug. 6 (AP) - The United States, Denmark and Greenland signed agreements on Friday to upgrade the early warning radar system at Thule, an important American air base during the cold war and now a crucial part of the Bush administration's plans for an antimissile defense system.

"Together we will meet the security challenges of the 21st century, from missile defense to international terrorism," Secretary of State Colin L. Powell said at a ceremony in this village.

Greenland's deputy prime minister, Josef Motzfeldt, said Greenland, a Danish protectorate, had had no say when the United States and Denmark signed an initial defense agreement in 1951 under NATO's auspices. He said that accord did not take into consideration the environment or animal life and exposed Greenland to cold war risks that "we were not allowed to know about."

Now that Greenland has home rule, Mr. Motzfeldt said, historians will see Friday as "the day when Greenland took a decisive step toward equality and co-responsibility."

Foreign Minister Per Stig Moeller signed for Denmark.

Three documents were signed. One updates the 1951 pact, the second provides for economic and technical cooperation and the third is aimed at protecting the environment. Mr. Powell told Greenland television that the agreement "allows us to make sure that we are providing for the kind of threats that the civilized world might see in the future." Mr. Moeller signaled that Denmark still had misgivings about the missile-defense plan. He said his government was not fundamentally opposed to them but that it had said yes to the agreements "and nothing else."

"Right now we are some distance from determining where we might need interceptors," Mr. Powell said, "but there is no plan right now for anything other than what we have already made known to the home-rule government and Kingdom of Denmark." The Thule base is just south of the North Pole. It housed more than 10,000 people, mostly Americans, at the height of the cold war and was a base for warplanes capable of carrying nuclear weapons. Now, there are about 550 people, including 125 Americans, at Thule.

The Greenland ceremony was the second in two days in which a NATO ally signed documents that dealt with the missile defense plans of the United States. Canada and the United States agreed Thursday in Toronto to amend the treaty that established the North American Aerospace Defense Command, or Norad, to reflect the United States system. As amended, Norad will share its missile warning function with United States commands that run its projected missile defense system.

Defense Minister Bill Graham and Foreign Minister Pierre S. Pettigrew of Canada said the agreement did not commit Canada to join the missile program. That decision "remains with the government and will only be made after extensive consultations," Mr. Graham said.

<http://www.nytimes.com/2004/08/07/international/americas/07powell.html>

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New York Times

August 8, 2004

Pg. 1

## **Diplomacy Fails To Slow Advance Of Nuclear Arms**

By David E. Sanger

KENNEBUNKPORT, Me., Aug. 7 - American intelligence officials and outside nuclear experts have concluded that the Bush administration's diplomatic efforts with European and Asian allies have barely slowed the nuclear weapons programs in Iran and North Korea over the past year, and that both have made significant progress.

In a tacit acknowledgment that the diplomatic initiatives with European and Asian allies have failed to curtail the programs, senior administration and intelligence officials say they are seeking ways to step up unspecified covert actions intended, in the words of one official, "to disrupt or delay as long as we can" Iran's efforts to develop a nuclear weapon.

But other experts, including former Clinton administration officials, caution that while covert efforts have been tried in the past, both the Iranian and North Korean programs are increasingly self-sufficient, largely thanks to the aid they received from the network built by Abdul Qadeer Khan, the former leader of the Pakistani bomb program. "It's a much harder thing to accomplish today," said one senior American intelligence official, "than it would have been in the 90's."

Mr. Khan's sales have also complicated the Bush administration's efforts to disarm North Korea. A new assessment of the country has come in one of three classified reports commissioned by the Bush administration earlier this year from the American intelligence community. Circulated last month, the report concluded that nearly 20 months of toughened sanctions, including ending major energy aid, and several rounds of negotiations involving four of North Korea's neighbors have not slowed the North's efforts to develop plutonium weapons, and that a separate, parallel program to make weapons from highly enriched uranium was also moving forward, though more slowly.

The desire to pursue a broader strategy against Iran's nuclear ambitions is driven in part, officials say, by increasingly strong private statements by Israeli officials that they will not tolerate the development of an Iranian nuclear weapon, and may be forced to consider military action similar to the attack against a nuclear reactor in Iraq two decades ago if Tehran is judged to be on the verge of deploying a weapon. (In contrast, North Korea's neighbors, especially South Korea and China, are seeking stability first, and disarmament as a longer-term goal, diplomats from the region say.)

"The evidence suggests that Iran is trying to keep all of its options open," said Robert M. Gates, the director of central intelligence under President Bush's father, who recently headed a detailed study of Iran that was critical of what it called the administration's failure to engage the country. "They are trying to stay just within their treaty obligations" while producing highly enriched uranium, said Mr. Gates, who is now the president of Texas A&M University, "and I think they can go with a weapon whenever they want to."

Mr. Gates and other outside experts were interviewed on the sidelines of a four-day conference on the challenges of nuclear terrorism and the spread of unconventional weapons held at the Aspen Institute last week. Separately over the past few weeks, five senior officials from the administration and Asian and European nations, all with varying access to the intelligence about the Iranian and North Korean programs, were interviewed about their status. Not surprisingly, their judgments about the progress the two countries have made were not always in accord.

The new report on North Korea, which has circulated among senior American officials and has been described to The New York Times, appears to have been written far more cautiously than the National Intelligence Estimate that erroneously described advanced weapons programs in Iraq. It describes in detail vast gaps in American knowledge. For example, it acknowledges that the whereabouts of North Korea's stockpile of more than 8,000 spent nuclear fuel rods has been a mystery since early 2003, but also concludes that the North has had plenty of time to reprocess the rods into enough fuel for six to eight additional weapons. Before then, North Korea was judged by the C.I.A. to have one or two weapons developed a decade ago.

For its part, Iran has begun to assemble the necessary ingredients and perhaps the same crude, Chinese- origin bomb design that the Khan network sold to Libya — and may be just a few years away, intelligence experts have said. Taken together, the intelligence conclusions pose both security and political challenges for President Bush, who is visiting here this weekend to attend a wedding and visit his parents at their seaside estate. Mr. Bush has said he will not “tolerate” either country becoming a nuclear power, ignoring, at least publicly, the near certainty that North Korea has already reached that status. But he has never defined that term, or set deadlines. He is already under attack by the Democratic presidential candidate, Senator John Kerry, for allowing both countries to move forward in their programs while the White House concentrated on the one member of what Mr. Bush has called the “axis of evil,” Iraq, that turned out to have virtually no evidence of a continuing nuclear program.

While the intelligence report on North Korea, which has also been described to some allies, was cautiously worded — the product, said one official who has seen it, of “a chastened intelligence community” — it makes it clear that North Korea now probably has enough weapons-grade plutonium to test a weapon in the future, which would allow it to demonstrate its capacity. While it retained raw nuclear material under a 1994 accord with the Clinton administration, that material was under close surveillance until the inspectors were thrown out on Dec. 31, 2002.

“The conventional wisdom now is that they have completely reprocessed all of it,” said Gary Samore, who headed nonproliferation efforts at the National Security Council under President Bill Clinton and has conducted a detailed assessment of North Korea for the International Institute for Strategic Studies in London. “They had a huge window of opportunity when we were invading Iraq, and they appear to have made maximum use of it.”

He said many analysts in the intelligence agencies believed that a “whiff” of a nuclear byproduct detected by an American spy plane off the coast of North Korea last year was evidence that the reprocessing was under way. But others say the experiment was never successfully repeated. They say it is possible that North Korea ran into difficulty in the chemical process of converting spent fuel into bomb material. “You can’t assume a linear progression,” said one senior American official.

Mr. Bush has said little recently about the Iranian and North Korean nuclear programs, in sharp contrast to his regular recitations about the danger posed by Iraq in the period before the war last year. When he and his aides do speak about the problem in public, they still refer to progress, but mostly progress in getting other countries to put pressure on Iran and North Korea.

“It’s very frustrating,” said one former official who left the Bush administration recently and believes that the administration has failed to draw clear “red lines” beyond which North Korea would not be allowed to expand its arsenal. The official noted that Mr. Bush and his aides had been talking as if North Korea and Iran would follow the model of Libya, which disarmed earlier this year in an effort to re-integrate its economy with the West. But, the official argued, Iran does not need to do that because it has robust trade with Europe, and North Korea still receives considerable aid from China.

In the past two weeks Iran announced that it was resuming the production of centrifuges needed to produce highly enriched uranium though it has said it is still “suspending” actual enrichment activities. While the United States has threatened to take the issue to the United Nations Security Council, it has yet to win support from many allies.

North Korea has publicly rejected a new American initiative to allow international aid to flow gradually to the country in return for speedy disarmament and giving inspectors the right to examine any suspected site.

Several of Mr. Bush’s aides have said they expect little concrete progress before the presidential election. The Iranians appear to be betting that Mr. Kerry, if elected, would talk directly to their leaders. Mr. Kerry has also said he would engage in bilateral discussions with North Korea; Mr. Bush has insisted on multilateral talks.

Meanwhile, Israel’s concerns are creating a pressure of their own. “They are doing what they can to delay the Iranian program and preparing military options,” said one official who has dealt with the Israeli government on the issue, providing no details about what they might be. But it is unclear that the Israelis have the military reach to strike Iran’s facilities. Moreover, American intelligence officials say, Iran learned from the Iraqi experience and has spread its facilities around the country, including in urban areas as a defense against such a strike.

<http://www.nytimes.com/2004/08/08/politics/08nuke.html>

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Los Angeles Times  
August 8, 2004

## Iran Calls Allegations Of Missile Tests Untrue

*Bush administration has accused Tehran of helping North Korea try out its weaponry.*

By Associated Press

TEHRAN — Iran on Saturday dismissed allegations that it was providing test sites for North Korean long-range missiles designed to deliver nuclear warheads, its official Islamic Republic News Agency reported.

A Bush administration official said last week that North Korea was getting around a self-imposed missile test ban by sharing technology information with Iran, which is allegedly carrying out missile tests on Pyongyang's behalf. Iranian Defense Minister Ali Shamkhani rejected the claim, saying, "Iran does not cooperate with North Korea in missile technology and it does not need to."

President Bush has labeled Iran and North Korea as being part of an axis of evil, accusing both of pursuing nuclear weapons programs.

A leading military publication, Jane's Defense Weekly, reported recently that North Korea was developing two new ballistic missile systems that have "appreciably expanded the ballistic-missile threat."

Although Shamkhani denied any kind of nuclear military activity, he said his country would not leave its people without defense. "That's why we have to invest in nuclear defense preparation," he added without elaborating.

Washington is working with South Korea, Japan, China and Russia to negotiate an agreement with North Korea to end its nuclear weapons program.

Iran says its nuclear program is entirely peaceful.

<http://www.latimes.com/news/nationworld/world/la-fg-iran8aug08.1.283178.story>

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Newsweek  
August 16, 2004

## The Stealth Nuclear Threat

*Terror is understandably on everyone's mind, but there is yet another growing danger over the horizon: an Iran ambitious for nukes*

By Fareed Zakaria

Who could have imagined that alliance management would be a hot election issue in America? But it is. John Kerry's repeated pledge to restore relations with America's allies has struck a chord. The trouble is, if he is elected president, Kerry is going to find that promise hard to keep—at least with America's allies in Europe. Most of them would be delighted to see Kerry win, but that doesn't mean they will be more cooperative on policy issues. Terror is understandably on everyone's mind, but there is yet another growing danger over the horizon. Early into a Kerry administration, we could see a familiar sight—a transatlantic crisis—except this time it wouldn't be over Iraq but Iran.

The threat to America from Iraqi weapons of mass destruction, if they ever existed, is in the past. Iran, on the other hand, is the problem of the future. Over the last two years, thanks to tips from Iranian opposition groups and investigations by the International Atomic Energy Agency, it has become clear that Iran is seeking to develop nuclear weapons. In the words of the agency, Iran has "a practically complete front end of a nuclear fuel cycle," which leads most experts to believe it is two to three years away from having a nuclear bomb.

European countries were as worried by this development as Washington and, since the United States has no relations with Iran, Europe stepped in last fall and negotiated a deal with Iran. It was an excellent agreement in which Iran pledged to stop developing fissile material (the core ingredient of a nuclear bomb) and to keep its nuclear program transparent. The only problem is, Iran has recently announced that it isn't going to abide by the deal. As the IAEA's investigation got more serious, Tehran got more secretive. One month ago the agency condemned Iran for its failure to cooperate. Tehran responded by announcing that it would resume work in prohibited areas.

That's where things stand now, with the clock ticking fast. If Iran were to go nuclear, it would have dramatic effects. It would place nuclear materials in the hands of a radical regime that has ties to unsavory groups. It would signal to other countries that it's possible to break the nuclear taboo. And it would revolutionize the Middle East. Saudi Arabia and Egypt would feel threatened by Iran's bomb and would start their own search for nuclear technology. (Saudi Arabia probably could not make a bomb but it could certainly buy necessary technology from a country like Pakistan. In fact, we don't really know all of the buyers who patronized Pakistani scientist A. Q. Khan's nuclear supermarket. It's quite possible Saudi Arabia already has a few elements of such a program.) And then there is Israel, which has long seen Iran as its greatest threat. It is unlikely to sit passively while Iran develops a nuclear



bomb. The powerful Iranian politician Ali Rafsanjani has publicly speculated about a nuclear exchange with Israel. If Iran's program went forward, at some point Israel would almost certainly try to destroy it using airstrikes, as it did Iraq's reactor in Osirik. Such an action would, of course, create a massive political crisis in the region. In the face of these stark dangers, Europe seems remarkably passive. Having burst into action last fall, it does not seem to know what to do now that Iran has rebuffed its efforts. It is urging negotiations again, which is fine. But what will it tell Iran in these negotiations? What is the threat that it is willing to wield?

Last month the Brookings Institution conducted a scenario with mostly former American and European officials. In it, Iran actually acquires fissile material. Even facing the imminent production of a nuclear bomb, Europeans were unwilling to take any robust measures like the use of force or tough sanctions. James Steinberg, a senior Clinton official who organized this workshop, said that he was "deeply frustrated by European attitudes." Madeleine Albright, who regularly convenes a discussion group of former foreign ministers, said that on this topic, "Europeans say they understand the threat but then act as if the real problem is not Iran but the United States."

American policy toward Iran is hardly blameless. Washington refuses even to consider the possibility of direct talks with Iran, let alone actual relations. Europeans could present Washington with a plan. They would go along with a bigger stick if Washington would throw in a bigger carrot: direct engagement with Tehran. This is something Tehran has long sought, and it could be offered in return for renouncing its nuclear ambitions.

But for any of this to happen, Europe must be willing to play an active, assertive role. It must stop viewing itself merely as a critic of American policy, but rather see itself as a partner, jointly acting to reduce the dangers of nuclear proliferation. And it should do this not as a favor to John Kerry but as a responsibility to its own citizens and those of the world.

<http://www.msnbc.msn.com/id/5635447/site/newsweek/>

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New York Times  
August 10, 2004

## **Bush Sees Joint World Effort To Press Iran On Nuclear Issue**

By Elisabeth Bumiller

ANNANDALE, Va., Aug. 9 - President Bush said Monday that the United States would maintain pressure on Iran to abandon its nuclear weapons program, emphasizing that his administration was working with other countries and not confronting Iran on its own.

"Iran must comply with the demands of the free world, and that's where we sit right now," Mr. Bush told a Republican crowd at an "Ask President Bush" campaign event in this Washington suburb. "And my attitude is that we've got to keep pressure on the government, and help others keep pressure on the government, so there's kind of a universal condemnation of illegal weapons activities."

The president has come under searing criticism from his Democratic competitor, Senator John Kerry, for what Mr. Kerry calls Mr. Bush's go-it-alone approach to foreign policy, which he says has left the United States isolated in the world. Mr. Kerry has also attacked Mr. Bush for allowing Iran to move forward with its nuclear ambitions while going to war with Iraq, where almost no evidence of a nuclear weapons program was found.

Mr. Bush has not directly answered Mr. Kerry's charges, but on Monday he repeatedly emphasized how much the United States was cooperating with other nations to try to stop the spread of nuclear weapons, particularly in Iran. "We've relied upon others to send the message for us," he told the crowd in the gymnasium at the Annandale campus of Northern Virginia Community College. "And the foreign ministers of Germany, France and Great Britain have gone in as a group to send a message on behalf of the free world that Iran must comply with the demands of the free world."

He concluded that "good foreign policy works with other countries, and we will."

At the same time, Mr. Bush acknowledged that the United States had exhausted an array of sanctions against Iran, which has felt minimal effect from them because of its robust foreign trade. "We've totally sanctioned them," he said. "In other words, there's no sanctions - you can't - we're out of sanctions."

On Sunday, Condoleezza Rice, the national security adviser, said on the NBC News program "Meet the Press" that she expected that the United Nations' International Atomic Energy Agency would make "a very strong statement" next month forcing Iran to choose between being isolated internationally or abandoning its nuclear weapons ambitions. But she stopped short of saying whether the United States would try to organize its allies to impose sanctions in the Security Council.

So far, major Western European nations and Russia have resisted American efforts to impose sanctions against Iran. In a sign of continuing difficulties in negotiations with Iran, a European official said in Vienna that the Tehran government had recently presented a list of demands that included its insistence on continuing its program to enrich

uranium, according to The Associated Press. Western experts say the program is aimed at producing a nuclear weapon.

The demands were said to have been given to French, German and British negotiators. The A.P. reported that European officials were disappointed that Iran had not been more forthcoming in recent talks.

Mr. Bush made his remarks about Iran in response to a question from an invited audience member, who was one of several in the crowd to ask about foreign policy. His campaign officials said Monday's "Ask President Bush" theme was the United States as an "ownership society," which allowed the president to promote policies that he said would encourage Americans to own their own homes, open health savings accounts, start their own businesses or plan for retirement. The event, in the strongly Republican state of Virginia, was timed to the release of a new Bush campaign advertisement, called "Ownership," that has begun airing in 18 closely fought states as well as nationally on cable channels.

Kerry campaign officials said the fact that Mr. Bush was spending time in Virginia three weeks before the Republican convention showed that his campaign was highly worried about losing a state that he won handily in 2000.

Bush campaign officials countered that the president had business at the White House all day, and that campaigning in suburban Virginia was about proximity, not desperation.

<http://www.nytimes.com/2004/08/10/international/middleeast/10bush.html?pagewanted=all>

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Moscow Times

August 10, 2004

Pg. 4

## **No Secrets For NATO**

MOSCOW (AP) -- Defense Minister Sergei Ivanov said Monday that Russia will not give NATO representatives direct access to nuclear facilities and ammunition during exercises meant to improve nuclear security, Itar-Tass reported.

Ivanov spoke a few days after NATO observers monitored a Russian exercise in which Army and law enforcement troops simulated repelling a terrorist attack on a convoy carrying nuclear weapons, media reported.

It was the first time NATO observers were present at annual nuclear exercises, and Ivanov's statement indicated he anticipated concerns about Western access to nuclear secrets.

<http://www.themoscowtimes.com/stories/2004/08/10/031.html>

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New York Times

August 10, 2004

Pg. 1

## **Moscow's Nuclear Past Is Breeding Perils Today**

By C.J. Chivers

MOSCOW, Aug. 5 - The radiation experts arrived at Viktor Avram's auto repair shop last month, appearing beside the wall separating the shop from an enormous factory. The men warned Mr. Avram to take care where he strolled. "They told me I could walk on the road," he recalled, nodding toward a dirt track that descends to the Moscow River. "But they said I should stay to the left. To the right is radiation."

Mr. Avram works beside a disquieting legacy of the early years of the nuclear arms race, a large radioactive waste site inside a city of 11 million people.

On the territory of the former Soviet Union the work of finding and recovering radioactive waste goes on not only near the plutonium-producing reactors in Siberia or the Urals, or on the test range in Kazakhstan that in 1949 detonated Moscow's first atomic bomb. It also occurs in the midst of daily life in Moscow - near offices, factories, train stations, highways and homes.

It is a result of the peculiar history of a rushed Soviet effort to tease secrets from the atom. Every country that has had atomic programs has been left with the difficult task of recovering the byproducts and waste. But the former Soviet Union, under orders from Stalin, began extensive nuclear research inside its most populated and central place, its capital.

"The program of creating the nuclear bomb, the atom bomb, started in Moscow," said Dr. Sergei A. Dmitriyev, general director of the Moscow region's branch of Radon, a little known arm of the Russian government charged with locating, retrieving and securing radiological waste.

Radon works to undo the consequences of an incautious time, when researchers, working in totalitarian secrecy and with an incomplete understanding of radiation's dangers, built a network of institutes and factories with little planning for dealing with the discarded material. Those sites left behind all manner of radiation-emitting waste; more than 1,200 orphaned sources have been retrieved in Moscow over the years, according to Aleksandr S. Barinov, chief engineer of Radon's Moscow branch.

Moscow's own development made matters worse. Some radioactive material piled up at factories or laboratories. Much was hastily dumped in forests that at the time were outside the city line. Then Moscow grew, overtaking its outskirts and sending down roots into illicit radioactive dumps.

"Eventually housing and offices were started in these areas," Dr. Dmitriyev said.

Radon, which operates a network of more than a dozen regional waste storage centers throughout Russia, began its work in 1961, after well over a decade's worth of waste had been orphaned. Work became more intensive after the explosion in 1986 at Chernobyl, when the Soviet Union ordered Radon to survey population centers and search for waste. A map of work completed shows recoveries throughout the city, from Moscow's inner ring near the Kremlin to subway stops and residential areas at its edge.

Mr. Barinov said Radon recovers and stores only low- and medium-level radioactive waste. Because the materials are not fissile, they are incapable of the chain reaction leading to a nuclear explosion. Their danger lies in emission of radiation.

The health risks of these low- and medium-level sources have not been conclusively established. Radon simply says much of the material has posed probable health risks, and its retrieval is essential both to reduce the risks and to ensure that radioactive waste will not be used in terror attacks. Its officials note that the medium-level sources sometimes have enough radioactivity to fuel so-called "dirty bombs."

Since 1996 Radon has also been required by law to monitor new construction sites, in case workers unearth long forgotten waste. And it retrieves unwanted sources from hospitals, institutes, factories and the city's nine nuclear research reactors, while working on several old waste sites where cleanup is incomplete, its officials say.

Once material is recovered, it is trucked to a dump about 50 miles northeast of the city, near Sergeiv Posad. Some of the waste is burned in intense heat and converted to black obsidian-like blocks, and the ashes are mixed with cement. All is entombed beneath cement, clay and soil, to keep the radioactivity from spreading.

Part of the work receives financing from the United States, which regards the collaboration as an important area of security cooperation. "They've got a just daunting task," Paul M. Longworth, deputy administrator for the National Nuclear Security Administration, a semiautonomous agency in the Department of Energy, said on a recent visit to the American Embassy in Moscow.

Abandoned radiological material is periodically found in cities elsewhere in the world. To help Russia secure radiological material that could be used in terrorist attacks, the nuclear security administration has been providing Radon with equipment, security upgrades and training.

"Every day that these sources go unsecured, or partly secured, is a day these sources could be used in a malevolent way," Edward McGinnis, director of the administration's Office of Global Radiological Threat Reduction, said in a telephone interview.

Last fall, the security administration completed work improving security at the storage facility for the more dangerous categories of waste Radon stores, underwriting new barriers, fencing, locks, video monitoring equipment and other features designed to deter theft or loss.

The upgrade is especially evident at a cavernous storage center near Dr. Dmitriyev's office near Sergeiv Posad, where, behind a series of gates, the most dangerous radioactive materials are buried.

The center resembles an aircraft hanger with a concrete floor dotted by rows of circular caps, each the size of a manhole cover. Under every cover is a subterranean vertical slot, nearly 20 feet deep. Radioactive materials are interred inside.

Radon regularly receives more material. Excavation of contaminated soil and the retrieval of other waste continues at several sites in Moscow, including the Kurchatov Institute, a nuclear research center that had its genesis in the Stalin era, when its grounds were beside an artillery range in the forest. Now it is well within the boundaries of the sprawling city.

Another active site is the Plant of Polymetals in southwestern Moscow, beside Mr. Avram's garage.

Last fall, an entire building on the plant's grounds was dismantled, carted away and entombed at Radon's dump. An extensive area of contaminated soil remains, Radon says, including a large fill on the embankment that drops to the Moscow River, opposite the Bochkarev beer plant.



Mr. Avram and another man who works near the plant said they had been visited by Radon's experts but had not been told what sort of manufacturing or research occurred in the building, or the level of radiation emitted by the site.

Edward Shingaryov, a spokesman for the federal Agency for Atomic Energy, said the plant manufactured control rods for nuclear reactors and extracted thorium and uranium from ore. A spokesman for the plant declined to comment further. "We are a closed enterprise," he said.

American officials noted that although Stalin's legacy is atypical, with so much orphaned waste in a national capital, the broader problem of Russia's radiological inheritance is not unique.

The other side of the arms race at times also conducted work in cities. In 1942, for example, before the United States government decided that nuclear tests should be conducted far from population centers, the world's first man-made nuclear reaction was made on a squash court at the University of Chicago.

On average, the Department of Energy recovers three unwanted, high-risk radiological sources every week in the United States, Mr. McGinnis said, and not only from isolated sites. He noted that four sources of strontium-90 were recovered inside Houston this year on the day the city was host to Super Bowl XXXVIII.

Still, the problem of urban radiation in Moscow is of an entirely different order, sometimes forcing residents to evaluate the safety of where they live or work. Mr. Avram, for his part, takes an accommodating view.

Shirtless and streaked with grease, he said he was not especially worried about the radiation near his garage. "I'm from Moldova and I drink Moldovan wine," he said. "It cleans everything. Radiation doesn't hurt me."

<http://www.nytimes.com/2004/08/10/international/europe/10radiation.html?pagewanted=all>

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## **Gulf War Diseases: DOD's Conclusions About U.S. Troops' Exposure Cannot Be Adequately Supported,**

by Keith Rhodes, chief technologist, before the Subcommittee on National Security, Emerging Threats, and International Relations, House Committee on Government Reform. GAO-04-821T, June 1.

<http://www.gao.gov/cgi-bin/getrpt?GAO-04-821T>

Highlights - <http://www.gao.gov/highlights/d04821thigh.pdf>

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