

USAF COUNTERPROLIFERATION CENTER CPC OUTREACH JOURNAL

Maxwell AFB, Alabama

<u>Issue No. 766, 4 December 2009</u>

Articles & Other Documents:

US Hardens Its Stance

<u>Obama To Set Nuclear Deadline For Iran - Russian</u> Analyst

Iran Says Israel Cannot Stop Its Nuclear Work

<u>Iran Rejects IAEA Resolution As "Illegal" - TV</u>

Defiant Iran Vows To Enrich Uranium Even More

'No Place For A-Bombs In Iran's Defense Doctrine'

Atomic-Blast Detection Station Established Near Iran

Syria Defends Iran Nuclear Plans

<u>Iran Rejects IAEA Transparency Demand On Atom</u> Sites

Russia And China Likely To Approve Sanctions

Putin: No Evidence Of Iran Nuclear Deviation

Arms Treaty Likely To Expire Before New Pact Is Set

Russia, U.S. Could Sign New Strategic Arms Deal By

<u>Yearend</u> — Expert

Russia Opposes Monitoring Of Missile Plants Under

New Deal With U.S

<u>U.S.</u>, Russia Pledge Arms Cooperation As START

Expires

N.Korea Not Ready To Resume Nuclear Talks - Russian

Senator

U.S. Lays Out Goals Ahead Of Talks With N. Korea

Indigenous Nuke Submarine In Two Years: Navy Chief

Obama Warns Of Pak Nukes Falling Into Terror Hands

US Says Cannot Meet Deadline To Screen Cargo For

Nukes

Moscow Region To Get Its Own Collider

Welcome to the CPC Outreach Journal. As part of USAF Counterproliferation Center's mission to counter weapons of mass destruction through education and research, we're providing our government and civilian community a source for timely counterproliferation information. This information includes articles, papers and other documents addressing issues pertinent to US military response options for dealing with chemical, biological, radiological, and nuclear (CBRN) threats and countermeasures. It's our hope this information resource will help enhance your counterproliferation issue awareness.

Established in 1998, the USAF/CPC provides education and research to present and future leaders of the Air Force, as well as to members of other branches of the armed services and Department of Defense. Our purpose is to help those agencies better prepare to counter the threat from weapons of mass destruction. Please feel free to visit our web site at http://cpc.au.af.mil/ for in-depth information and specific points of contact. The following articles, papers or documents do not necessarily reflect official endorsement of the United States Air Force, Department of Defense, or other US government agencies. Reproduction for private use or commercial gain is subject to original copyright restrictions. All rights are reserved.

Asian Times 2 December 2009

US Hardens Its Stance

By Jim Lobe

WASHINGTON - Iran's announced intention to build 10 new nuclear enrichment plants has been deemed "unacceptable" by the United States administration of President Barack Obama, which warned on Monday of increased pressure on Tehran if it does not soon accept Western proposals to curb its nuclear program.

The contretemps, which came amid reports that Tehran had arrested five British nationals whose sailboat strayed into Iran's territorial waters, was the latest indication that tensions between Iran and the United States and its Western European allies are escalating rapidly.

Although independent experts described Iran's plans, announced on Sunday by President Mahmud Ahmadinejad, as wildly improbable, they also agreed that the announcement itself would bolster hardliners in Israel and the West who favor confrontation over diplomacy.

Indeed, the neo-conservative editorial board at the Wall Street Journal on Monday jumped on Ahmadinejad's announcement to argue for a much tougher line, even "military strikes", against Iran.

"[U]ntil the president, his advisers and the Europeans realize that only punitive sanctions or military strikes will force [Iran] to reconsider its nuclear ambitions, an emboldened Islamic Republic will continue to march confidently toward a bomb over the wreck of ... Barack Obama's best intentions," the Journal wrote.

Ahmadinejad's announcement came in response to Friday's approval by the 35 governors, including the representatives of Russia and China, of the International Atomic Energy Agency (IAEA) in Vienna of a Westernsponsored resolution demanding a halt to all work on a yet-to-be-completed nuclear enrichment plant near Qom.

Iran reported the existence of the Qom plant to the IAEA in late September. But Western powers claimed that Tehran should have given notice that it planned to build such a plant much earlier, pursuant to IAEA rules that Iran insists it was no longer bound by.

Iran's initial report about the Qom plant came on the eve of the first and thus far only round of high-level talks between it and the so-called "Iran Six" on Tehran's nuclear program. The six are the five permanent members of the United Nations Security Council, the US, Britain, France, Russia and China, plus Germany.

While all the parties reportedly agreed in principle on a plan to ship about 75% of Iran's existing stockpile of low-enriched uranium (LEU) for reprocessing in Russia and France to levels that could be used for the production of medical isotopes, Iran has subsequently balked at the specific terms by which the accord would be carried out.

Tehran's failure so far to offer a definitive yes or no - or even to schedule a follow-up meeting - is widely seen as a reflection of an intensifying power struggle between more moderate and hardline factions in the regime in the wake of June's contested elections.

Ahmadinejad's announcement on Sunday that Iran intends to build 10 more nuclear plants of the same scale as its Natanz facility is also seen as part of that struggle, particularly because he initially appeared to favor the accord.

"The announcement suggests that the hardliners hold the upper hand in the internal debate over whether to seek some kind of diplomatic accord with the international community over this," said Wayne White, a top Middle East intelligence analyst at the US State Department until his retirement in 2005.

"For a while, I thought they were playing hard to get, but now one has to wonder whether they are sending signals not only to [the West], but to others in the leadership, that there's no way we're going to do this," he added.

Along with Ahmadinejad's announcement, Iran's parliament on Sunday urged the government to reassess its cooperation with the IAEA, while hardline lawmakers called for Tehran to abandon altogether the nuclear Non-Proliferation Treaty (NPT) to which Iran is a signatory.

"If any country really wants to obtain nuclear energy, they should not try and obtain it through the IAEA and the NPT, because they won't do anything," declared parliamentary speaker, Ali Larijani, a key hardliner and long-time adviser to Iran's spiritual leader, Ayatollah Ali Khamenei.

"The West is at a crossroads. Either they accept our nuclear program, or Iran will use its own capabilities," he warned.

Washington's initial reaction to Ahmadinejad's announcement was relatively restrained. In a statement issued by the White House, spokesman Robert Gibbs said Iran's plans, if implemented, would be "yet another serious violation of Iran's clear obligations under multiple UN Security Council resolutions, and another example of Iran choosing to isolate itself".

But Washington's UN ambassador, Susan Rice, Monday seemed to harden the administration's position, calling the announcement "completely inappropriate" and "frankly unacceptable".

"As Iran makes choices that seem to indicate that it is not at this stage ready and willing to take up the offers on the engagement track, then we will put greater emphasis on the pressure track," she added. "Time is short and we are serious about implementing to the fullest extent that dual-track policy."

Obama has said he would pursue his "engagement" policy toward Iran through the end of the year before assessing whether to continue it or to seek broader sanctions to pressure the regime.

Washington's West European allies also chimed in on Monday with threats to impose new economic sanctions if Iran maintained its defiance.

China, however, maintained silence on the matter, while Russian Energy Minister Sergei Shmatko insisted during a joint press conference with Iran's foreign minister that there remained "good scope to continue negotiations".

While both China and Russia supported Friday's IAEA resolution demanding that Iran stop construction at the Qom facility, it remains unclear whether the two powers - which enjoy veto power in the Security Council - will support additional economic sanctions against Tehran.

Most experts in Washington dismissed Ahmadinejad's plans as folly from both a technical and an economic point of view. They also noted that such a decision would be taken by the Supreme National Security Council under Khamenei, rather than by Ahmadinejad and his cabinet.

"In my view, this is a classic Ahmadinejad blustery response to the recent IAEA resolution that criticized Iran," wrote Gary Sick, an Iran specialist at Columbia University on his widely read blog. "It is also the kind of anteraising that one might expect in a negotiating game of 'chicken'."

"I think it is premature, as our British friends might say, to get our knickers in a twist," he added.

But White warned that the announcement itself "is bound to further inflame the already rather tense situation".

"Although seasoned observers might be able to keep their knickers from getting into a twist over this," he said, "powerful quarters are quite prepared to use whatever they can to achieve just that with respect to the Iranian nuclear impasse."

Moreover, "[t]his announcement would tend to elevate, not allay, some of the fears of even those parties trying in good faith to defuse the current standoff diplomatically," he added.

(Inter Press Service)

http://www.atimes.com/atimes/Middle East/KL02Ak03.html

(Return to Articles and Documents List)

RIA Novosti – Russian Information Agency 2 December 2009

Obama To Set Nuclear Deadline For Iran - Russian Analyst

A Russian analyst has said that the U.S. and other Western states were likely to set a deadline for Iran to address growing concerns over its nuclear program.

White House press secretary Robert Gibbs said on Monday that "time is running out for Iran" to show the international community its readiness to continue a dialogue on its nuclear program.

"I think Obama will set a deadline for Iran," Vladimir Sazhin, senior researcher at the Academy of Sciences' Institute of Oriental Studies, said in an interview with RIA Novosti.

"If I'm not wrong, French president Nicolas Sarkozy said the deadline is New Year's Eve. So, I don't think there will be any radical decisions on this issue before the New Year," the Russian analyst said.

He added that despite Tehran's rhetoric that sanctions would be ineffective, the Islamic Republic was alarmed by the possibility.

"I believe that Iranians are probably worried by the current situation more than they were two years ago," Sazhin said. "They have also been alarmed by what Russian President Dmitry Medvedev said on this issue, that tougher sanctions could be approved against Iran."

Medvedev said earlier the country could support sanctions if Iran fails to allay Western doubts over the peaceful nature of the program.

Iran, which is already under three sets of UN sanctions for refusing to halt uranium enrichment, recently announced plans to build 10 new uranium enrichment facilities. Tehran insists it needs nuclear technology to generate electricity, claiming the right under the Nuclear Non-proliferation Treaty.

The International Atomic Energy Agency (IAEA) censured Iran for withholding information on its controversial nuclear program in a resolution last week. It also urged Iran to freeze construction of its newly revealed uranium enrichment facility in Qom.

The resolution was endorsed by Germany, Britain, China, France, Russia and the United States, the six nations involved in long-running nuclear negotiations with Iran.

MOSCOW, December 2 (RIA Novosti)

http://en.rian.ru/russia/20091202/157066404.html

(Return to Articles and Documents List)

Khaleej Times – U.A.E.

2 December 2009

Iran Says Israel Cannot Stop Its Nuclear Work

TEHRAN - Iranian President Mahmoud Ahmadinejad said on Wednesday Israel could not do a "damn thing" to stop the Islamic state's nuclear programme, which the West suspects is a front to build bombs.

"The Zionist regime (Israel) and its (western) backers cannot do a damn thing to stop Iran's nuclear work," Ahmadinejad said in a televised speech in the central city of Isfahan.

 $\frac{http://www.khaleejtimes.com/darticlen.asp?xfile=data/middleeast/2009/December/middleeast_December23.xml\§ion=middleeast$

(Return to Articles and Documents List)

The Star – Malaysia 2 December 2009

Iran Rejects IAEA Resolution As "Illegal" - TV

TEHRAN (Reuters) - Iranian President Mahmoud Ahmadinejad rejected on Wednesday as "illegal" a U.N. nuclear watchdog resolution over the country's disputed nuclear activities, state television reported.

Ahmadinejad also said Israel could not do a "damn thing" to stop the Islamic state's nuclear programme, which the West suspects is a front to build bombs. Iran denies the claim.

"Under pressure of a few superficially powerful countries ... the International Atomic Energy Agency (IAEA) passed an illegal resolution against the Iranian nation," Ahmadinejad said in a televised speech in the central city of Isfahan.

The IAEA passed a resolution on Friday censuring Iran for covertly constructing a second enrichment plant near the holy city of Qom, in addition to its IAEA-monitored one at Natanz, and demanding a construction halt.

Tehran said on Sunday it would build 10 more uranium enrichment sites in retaliation for the resolution, which sailed through with unusual Russian and Chinese support.

Israel, which Iran refuses to recognise, has said a nuclear- armed Iran would be a threat to its existence and points to Ahmadinejad's calls for Israel to be wiped off the map.

That has raised concerns that Israel could ultimately carry out a military strike against Iranian nuclear sites.

U.S. President Barack Obama said Washington wanted Iran's nuclear dispute to be resolved through diplomacy but has not ruled out other options.

Ahmadinejad said Israel could not harm Iran, ruling out any further talks with six major powers over the nuclear dispute.

"The Zionist regime (Israel) and its (Western) backers can not do a damn thing to stop Iran's nuclear work," Ahmadinejad told a crowd to chants of "Death to Israel" and "death to America".

(Writing by Parisa Hafezi; Editing by Robin Pomeroy)

http://thestar.com.my/news/story.asp?file=/2009/12/2/worldupdates/2009-12-02T182444Z 01 NOOTR RTRMDNC 0 -444059-1&sec=Worldupdates

(Return to Articles and Documents List)

Miami Herald 2 December 2009

Defiant Iran Vows To Enrich Uranium Even More

By GEORGE JAHN

In a defiant speech, Iran's president declared Wednesday that his country will enrich uranium to a much higher level - a fresh rejection of an international plan to curb Tehran's nuclear program.

Experts said that could put Tehran on the road to making the material needed to arm a warhead within months.

"I declare here that with the grace of God, the Iranian nation will produce 20 percent fuel and anything it needs itself," Ahmadinejad told a cheering crowd in the central city of Isfahan.

Iran denies any interest in developing nuclear arms, and Iranian President Mahmoud Ahmadinejad's speech made no suggestion the Islamic Republic was planning to turn its enriched uranium stockpile into material that could be used in nuclear warheads.

Ahmadinejad said Tehran was ready to further enrich some of its present stockpile - now at 3.5 percent - to 20 percent, the grade needed to create fuel for a small medical research reactor in the Iranian capital.

Uranium enriched at low levels can be used as fuel for nuclear energy, but when enriched to 90 percent and above, it can be used as material for a weapon. The United States and five other world powers have been trying to win Iran's acceptance of a deal under which Tehran would ship most of its low-enriched uranium stockpile abroad to be processed into fuel rods for use in the research reactor.

That would leave Iran - at least temporarily - without enough enriched uranium to produce a bomb. However, after signaling in October that it would accept the proposal, Iran has since balked, presenting counterproposals that would keep the stockpile in Iran.

On Wednesday, Ahmadinejad went a step further, vowing Iran would enrich the uranium needed for the research reactor itself.

"We told them, 'Give us the 20 percent fuel" needed for the research reactor in an exchange, the Iranian leader said in Isfahan. "But then they started adding conditions."

"So we said, 'If you want to give us the fuel, we'll take it. If not, then fine and goodbye."

Some 33 to 66 pounds (15 to 30 kilograms) of uranium enriched to levels above 90 percent would be needed to produce a nuclear bomb. Iran currently has around 3,300 pounds (1,500 kilograms) of 3.5 percent, or low-enriched uranium - enough to produce highly enriched material for two such weapons.

David Albright of the Washington-based Institute for Science and International Security, which has tracked Iran for signs of covert proliferation, said the process of moving from low-enriched to 20 percent enriched uranium would take months, but the next stage - enriching to weapons grade - would require only an additional "couple of weeks."

"They're 90 percent on the way" toward weapons-grade uranium once they have enriched to 20 percent, Albright said.

A nuclear expert familiar with Iran's atomic activities said Iran could be enriching to higher levels within months after reconfiguring and testing its centrifuges, the machines that spin uranium gas into enriched material. The expert - a government official from one of the five permanent U.N. Security Council nations - demanded anonymity because he was not authorized to comment on the issue.

Ahmadinejad's comments were the latest in a string of defiant statements by the Islamic Republic in a furious reaction to criticism by the 35-nation board of the International Atomic Energy Agency.

Last week, the board endorsed a resolution from the six powers - the U.S., Russia, China, Britain, France and Germany - in a lopsided majority vote.

That document criticized Iran for defying a U.N. Security Council ban on uranium enrichment and continuing to expand operations at the Natanz plant under IAEA monitoring. It also censured Iran for secretly building a second facility and demanded that it immediately suspend further construction.

It noted that IAEA chief Mohamed ElBaradei, who has since stepped down, could not confirm that Tehran's nuclear program is exclusively geared toward peaceful uses and expressed "serious concern" over Iran's stonewalling of IAEA allegations it tried to make nuclear arms.

On Sunday, Ahmadinejad announced Iran would build 10 more uranium enrichment facilities, despite the widespread belief the country simply does not have the resources to do so.

Though Iran has yet to lodge an official rejection of the U.N.-backed proposal to send its low-enriched uranium stockpile abroad for further processing, the series of defiant statements over the past few days have sent a clear signal the idea is all but dead.

British Prime Minister Gordon Brown said last month that the U.N. offer has been "comprehensively rejected" by Iran. A diplomat from one of the six powers said Wednesday that America's Western allies were waiting for Washington to formally declare the wait for an Iranian response over, probably by the end of this month.

At that time, he said, the six nations would likely focus on a fourth set of U.N. Security Council sanctions on Tehran for defying its enrichment ban amid signs that Russia and China, Tehran's traditional allies on the council, might be more willing to vote for new penalties. The diplomat demanded anonymity in order to discuss confidential information.

In his comments Wednesday, Ahmadinejad signaled Iran was ready for heightened confrontation, saying it was no longer ready to negotiate with the international community over the enrichment plan or any other aspects of its nuclear program.

"You should know that even if you sizzle ... the Iranian nation won't talk to you concerning the nuclear issue," he said

http://www.miamiherald.com/news/world/AP/v-fullstory/story/1361365.html

(Return to Articles and Documents List)

Tehran Times – Iran 3 December 2009

'No Place For A-Bombs In Iran's Defense Doctrine'

President Mahmoud Ahmadinejad has said Iran does not need nuclear weapons to defend itself against enemies and emphasized that the country is ideologically opposed to nuclear weapons.

"(Nuclear) bombs have no place in Iran's defense doctrine," Ahmadinejad told Iran's IRIB Channel One in a live interview on Tuesday night.

"The West's claims that Iran is trying to develop nuclear bombs are totally baseless, and we have repeatedly declared that we don't want to develop [nuclear] bombs," the Iranian president stated.

"The Leader (of the Islamic Revolution Ayatollah Seyyed Ali Khamenei) has declared that we are ideologically opposed to (nuclear) bombs," Ahmadinejad added.

Tehran has repeatedly declared that its nuclear program is peaceful and is being pursued within the framework of international regulations.

The International Atomic Energy Agency has conducted numerous inspections of Iran's nuclear facilities but has never found a shred of evidence indicating that Iran is trying to produce nuclear weapons.

(Source: Press TV)

http://www.tehrantimes.com/Index_view.asp?code=209199

Bloomberg.com 3 December 2009

Atomic-Blast Detection Station Established Near Iran

By Jonathan Tirone

Dec. 3 (Bloomberg) -- A United Nations group seeking to outlaw nuclear-weapons tests has set up a detection facility near the border between Iran and Turkmenistan that can register the shockwaves of an atomic blast.

The **Comprehensive Nuclear-Test-Ban Treaty Organization** built seismic station PS44 near Ashgabat, Turkmenistan, a "few kilometers" from the Central Asian country's southern border with Iran, the Vienna-based group said yesterday in a statement on its **Web site**. The site adds to the group's 337 stations worldwide designed to detect seismic activity and atmospheric radiation caused by nuclear explosions.

UN inspectors received **intelligence material** that included Iranian designs for a 400-meter (1,312-foot) deep shaft that could be used for testing a nuclear bomb, the world body's **International Atomic Energy Agency** said in May 2008. The documents also showed plans for a control station 10 kilometers from the unidentified blast site, along with diagnostic equipment to monitor an explosion.

Iran has rejected IAEA requests to discuss the test-site design. The U.S. and several major allies say that Iran's nuclear program is cover for weapons development, an allegation denied by the government in Tehran, which says the work is for peaceful purposes such as electricity generation. Iran says that the documents on the possible test site are fake.

Not Ratified

Iran is one the nine countries that have yet to ratify the Comprehensive Test-Ban Treaty. There have been more than 2,000 nuclear test explosions worldwide since the Manhattan Project's **Trinity trial** in the U.S. in July 1945. The last detonation occurred May 25, when North Korea said it conducted a test, an event that was detected at 61 of the UN organization's seismic stations.

The other eight countries that must ratify the treaty for it to come into force are China, Egypt, India, Indonesia, Israel, North Korea, Pakistan and the U.S.

The UN can detect a blast as small as 2.75 on the Richter scale, the treaty organization's director, **Tibor Toth**, said in a report issued last month. A 1-kiloton blast, equivalent to 1,000 tons of TNT, registers 4 on the Richter scale.

The atomic bomb that detonated over the Japanese city of Hiroshima in 1945, at the end of World War II, was 15 kilotons and the bomb over Nagasaki, Japan, three days later had a force of 21 kilotons, according to the National Resources Defense Council, a New York-based environmental group. The biggest nuclear weapon ever tested was the Soviet Union's 50 megaton "Tsar-bomb," detonated in October 1961.

http://www.bloomberg.com/apps/news?pid=20601085&sid=ab a09nGzc Y

(Return to Articles and Documents List)

YahooNews December 3, 2009

Syria Defends Iran Nuclear Plans

Agence France-Presse (AFP)

DAMASCUS — Syrian President Bashar al-Assad defended Iran's controversial nuclear programme on Thursday, during a visit to Damascus by Iran's chief nuclear negotiator Saeed Jalili, and promised that cooperation between the two countries would continue.

Assad asserted "the right of Iran and other countries that are signatories to the nuclear Non-Proliferation Treaty to enrich unranium for civilian purposes," the official SANA news agency said.

Assad's remarks followed comments by Iranian former president Akbar Hashemi Rafsanjani urging his country's feuding political factions to stand together in the face of foreign pressure on Tehran over its nuclear programme.

After his meeting with Assad, Jalili told a joint news conference with Syrian Foreign Minister Walid Muallem that Iran required uranium enriched to 20 percent, which he described as "a legitimate right," and added that the UN nuclear watchdog "should help all its members to acquire atomic energy."

Last Friday, the International Atomic Energy Agency passed a vote of censure against Iran calling on it to halt construction of a second uranium enrichment plant near the central shrine city of Qom.

For his part, Muallem said that Syria believed in a "political solution" to the standoff with the West over Iran's nuclear programme. "We hope that this will not come to a confrontation between Iran and the West," he said.

Chinese foreign ministry spokesman Qin Gang also said on Thursday that Beijing hoped "to see the early settlement of the Iranian nuclear issue through dialogue and negotiation."

Tehran confirmed on Wednesday its intention to produce strongly enriched uranium, in defiance of last week's IAEA resolution.

Syria has been a close ally of Iran for the past three decades, having sided with it against Iraq in the two neighbours' 1980-88 war.

http://news.yahoo.com/s/afp/20091203/wl mideast afp/irannuclearpoliticssyria 20091203165532

(Return to Articles and Documents List)

The Star – Malaysia 4 December 2009

Iran Rejects IAEA Transparency Demand On Atom Sites

By Parisa Hafezi

TEHRAN (Reuters) - Iran said it will provide the U.N. nuclear watchdog with the bare minimum of information about its plan to build 10 new uranium enrichment plants, a stance sure to stoke Western suspicions about its atomic agenda.

In a defiant response to last week's International Atomic Energy Agency board of governors vote rebuking Iran for building a second enrichment plant in secret, Tehran said on Sunday it would build 10 more sites like its IAEA-monitored one at Natanz.

In 2007, in reprisal for U.N. sanctions slapped on it, Iran renounced an amended IAEA code of conduct requiring states to notify the agency of nuclear plans as soon as they are drafted, so as to catch any illicit atomic bomb work in the early stages.

Iran reverted to an earlier IAEA transparency code mandating only 180 days notice before a nuclear site begins production.

A senior Iranian official quoted by official news agency IRNA made clear Iran would apply the minimum transparency rule to its plan for 10 more enrichment plants.

Analysts say Iran will need many years if not decades for such a huge expansion of enrichment, but fear Iran's adherence to obsolete notification rules will heighten the risk of Tehran trying to "weaponize" enrichment clandestinely.

Uranium enrichment can be calibrated to yield fuel either for nuclear power plants or the fissile core of a nuclear bomb.

A senior Iranian diplomat involved in now stalled nuclear talks with the West said Iran would continue cooperation with the IAEA only according to its 1970s basic safeguards agreement.

"According to the safeguards, after installation of equipment (centrifuges) and only 180 days ahead of injecting gas into the centrifuges ... we should inform the IAEA," Abolfazl Zohrehvand told IRNA. "And we will act within the framework of the safeguard," the former Iranian ambassador to Italy said.

"Since 2007, Iran officially has stopped implementation of amendments to code 3.1, obliging countries to inform the IAEA when they plan to build a facility," added Zohrehvand.

SHADOWY PROJECT

The IAEA has told Iran it was "outside the law" by failing to declare the second enrichment site taking shape inside a mountain bunker near Qom as soon as plans for it were drawn up.

Iran said construction there began in 2007 and the project was hushed up for fear of air strikes by Israel. Iran declared the plant to the IAEA in September after, according to Western powers, learning that their spy services had discovered it.

Western diplomats said they had intelligence evidence that the enrichment project was hatched before 2007, and that Iran probably would have used the site to enrich uranium to weapons-grade if it had not been exposed.

Iran says its enriched uranium will be only for electricity generation. Iran's record of nuclear secrecy and lack of power plants to use low-enriched uranium has convinced the West that Iran is hiding a programme to develop nuclear weapons capacity.

Last week's IAEA resolution also urged Iran to halt all enrichment-related activity, allow unfettered IAEA inspections, guarantee it is not hiding more sites, and cooperate with an IAEA probe into allegations of nuclear weapons research by Iran.

The United States and Germany warned Iran on Thursday that it was rapidly approaching a December deadline to accept an IAEA-brokered nuclear cooperation deal with world powers.

Iran has backed off from the deal calling on it to send 75 percent of its low-enriched uranium (LEU) to Russia and France to be turned into fuel for a Tehran medical research reactor.

The West hoped that farming out a large amount of Iran's LEU reserve for reprocessing would minimise the risk of Iran's refining the material to high purity suitable for bombs.

But hardline President Mahmoud Ahmadinejad said on Wednesday Iran would enrich its LEU stockpile to 20 percent purity needed for the medical isotope reactor, a step the West fears would usher Iran closer to the 80-90 percent grade for an atom bomb.

In talks with six world powers in Geneva on Oct. 1, Iran agreed in principle to the deal but has since balked. Iran has until the end of the year to agree to it or face the threat of tougher sanctions, U.S. officials say.

U.S. President Barack Obama's efforts to engage Iran with confidence-building measures have so far been fruitless. Ahmadinejad ruled out further talks with six major powers on the future of Iran's enrichment campaign.

(Writing by Mark Heinrich; Editing by Samia Nakhoul)

http://thestar.com.my/news/story.asp?file=/2009/12/5/worldupdates/2009-12-04T172924Z_01_NOOTR_RTRMDNC_0_-444633-2&sec=Worldupdates

(Return to Articles and Documents List)

Alalam News Network – Iran

4 December 2009

Putin: No Evidence Of Iran Nuclear Deviation

Russian Prime Minister Vladimir Putin said on Thursday that his country has no evidence that Iran is working on the development of nuclear weapons, claimed by Western countries.

"We have no information on Iran's work on nuclear weapons," the prime minister said during an annual televised question-and-answer session with Russians.

Putin's comments came as Russia joined other great powers in voting in favor of an IAEA resolution on Friday that urged Iran to halt the construction of a uranium enrichment plant.

The resolution was endorsed by Russia, Germany, Britain, China, France and the United States, the six nations involved in long-running nuclear negotiations with Iran.

Iranian President Mahmound Ahmadinejad said earlier that Russia "made a mistake" when it backed the resolution. He said Russia's decision to endorse the document was based on an "incorrect analysis of the current international situation."

http://www.alalam.ir/english/detail.aspx?id=89477

Herald Sun – Australia 5 December 2009

Russia And China Likely To Approve Sanctions

By Philippe Rater in Paris

IRAN'S defiant pursuit of its nuclear program has tested the patience of Moscow and Beijing and increased the chances that they might support sanctions against Tehran, analysts said today.

After President Mahmoud Ahmadinejad's latest provocation, a vow to build 10 more uranium reprocessing plants, diplomats in Western capitals now dare to hope that the US Security Council could unite behind a plan of action.

But experts in Moscow and Beijing warn their governments remain unwilling to support the kind of severe financial embargoes and targeted trade restrictions favoured in Washington, Paris, London and Berlin.

"In 2009 the Iranians weren't able to find positions that might divide the Group of Six," said one analyst, speaking on condition of anonymity and referring to Britain, China, France, Germany, Russia and the United States.

According to the Paris-based official, this contact group of world powers set up to negotiate with Tehran is ``all agreed that Iran should not get a nuclear weapon" while some ``are actively drawing up new sanctions".

Iran's regime, now under pressure at home from a newly vocal domestic opposition movement, has refused a UN-mediated offer to send its uranium stockpile to Russia and France to be refined for use in a medical reactor.

This refusal, which increased international fears that Tehran's true intent is to create weapons grade fuel, led last week to members of the UN watchdog International Atomic Energy Agency (IAEA) voting to censure Iran.

Russia, usually an ally of Iran, co-sponsored the censure motion and China, traditionally a staunch defender of national sovereignty over international oversight, voted to support it.

"Russia supports the idea of sanctions against Iran," said Fyodor Lukianov, editor of the Russian foreign policy journal Russia in Global Affairs.

"The real question will be 'what kind of sanctions'? There will be deep disagreement, and Russia will not support very tough sanctions like those sought by the United States," he warned.

In the West, Russia's vote was nevertheless seen as a breakthrough that could clear the path for tougher United Nations economic sanctions against Iran in the New Year.

"The real break with Russia came in September when Washington, Paris and London revealed Iran was building a secret new enrichment plant," said one Western diplomat, pointing to new tensions between Tehran and Moscow.

Moscow has since sought to slow the coming into service of a Russian-built Iranian nuclear reactor in Bushehr and has delayed the delivery of the latest S-300 anti-aircraft missiles to the Iranian military.

China, which relies on Iran for oil imports, has made no public change of position, and experts warned that while it might appear to support a tougher sanctions regime it would work behind the scenes to weaken it.

"China has joined to put pressure on Tehran. In Western eyes this is progress, but this is not sanctions," said Shi Yinhong, professor of international relations at the People's University of Beijing.

"China's position on sanctions on Iran is generally to dilute sanctions. I have not seen any indication that China is willing to put severe sanctions on Tehran. China still has huge energy cooperation with Iran."

"So there is some change, but if you want to see fundamental change, you will have to wait and see. I doubt that it will happen," he said.

In effect, Russia and China have supported each of the last five motions brought against Iran in the United Nations Security Council, including three that included sanctions.

On each occasion, however, their diplomats had prepared the ground for the vote by watering down the measures taken against Tehran.

http://www.heraldsun.com.au/news/world/russia-and-china-likely-to-approve-sanctions/story-e6frf7lf-1225807162978?from=public rss

New York Times 3 December 2009

Arms Treaty Likely To Expire Before New Pact Is Set

By Peter Baker and Clifford J. Levy

WASHINGTON — American and Russian negotiators are racing to solve the remaining obstacles to a new arms control treaty that would cut the world's two largest nuclear arsenals by up to a third and replace a cold-war-era pact that expires Saturday.

The delegations are working marathon hours in Geneva to resolve differences over verification and to settle other details of an agreement that would reduce the number of deployed strategic warheads, missiles, bombers and submarines to their lowest levels in a half century. A mostly complete text has been written and translated, and there have been discussions about where to hold a signing ceremony.

But it appears unlikely that they will complete their work by the time the Strategic Arms Reduction Treaty of 1991, known as Start, expires, or that it can be ready for President Obama to sign when he visits Europe next week.

The idea of a ceremony next week had particular appeal because of the resonance of signing an arms control treaty on the same trip that Mr. Obama receives his Nobel Peace Prize, allowing him to position himself as a peacemaker even as he is escalating the war in Afghanistan.

Mr. Obama's goal of eventually ridding the world of nuclear arms is more popular in Europe and elsewhere than is the eight-year-old war in Afghanistan.

As recently as this week, officials in Geneva were talking about holding a signing ceremony in Reykjavik, Iceland, the scene of the 1986 summit meeting where Ronald Reagan and Mikhail S. Gorbachev came close to an agreement to eliminate nuclear weapons altogether. Other sites under consideration were Geneva and Helsinki, Finland.

But a White House official, who was not authorized to speak for attribution about the talks, said that "it's not going to happen" next week and that negotiators were now aiming for the end of the year. "We are working this hard, but it will only get done if it is a good agreement that advances our national interests," the official said.

The two sides appear close on the question of limits. Mr. Obama and President Dmitri A. Medvedev had already narrowed the range for a cap on warheads to between 1,500 and 1,675 during a meeting in July, down from about 2,200 each side has now. They are likely to agree to lower the ceiling on delivery vehicles — intercontinental ballistic missiles, submarine-based missiles and strategic bombers — to below 800, from 1,600, according to an American official, although that would not result in significant reductions because the United States has about 800 and Russia about 620.

The most significant differences center on verification and monitoring. "There's been a huge amount of progress just in the last week," said the American official, who also was not authorized to discuss the negotiations with reporters. But "there's going to have to be political heavy lifting in the next few days," the official said.

Konstantin I. Kosachev, chairman of the international affairs committee in Russia's Parliament, said final differences "require serious effort and compromise in the remaining time," according to his office. Speaking from Geneva, he said the delegations were continuing "tense, intense and substantive work practically around the clock."

Even if an agreement is reached in the coming days, the new treaty would need to be ratified by the Senate and the Russian Parliament, which could take months, so the two sides are working on a bridge agreement to continue inspections, verification and monitoring after Start expires.

One monitoring program, however, will not continue. The American observation station at Votkinsk, about 600 miles east of Moscow, will close by Saturday. Under Start, the station is staffed by Americans who monitor manufacturing of Topol-M ballistic missiles and other arms. The Kremlin has long chafed at the presence of an American outpost deep in its territory, since it closed its own monitoring station in the United States years ago.

Russia has taken a harder line on monitoring in part because its military and diplomatic establishment believes that a weakened Moscow in the waning days of the cold war made concessions that infringed upon its sovereignty.

"Russia is not interested in having the same scope of verification procedures that were in the earlier treaty," said Anton V. Khlopkov, director of the Center for Energy and Security Studies in Moscow. "There is this conclusion that these measures were too much, and too extensive."

But any concessions on verification could draw criticism in Washington, where Mr. Obama needs at least seven Republican votes in the Senate to ensure ratification. In a floor speech last month, Senator Jon Kyl of Arizona, the Republican whip, said that verification had not "gotten the attention it deserved all along."

Baker Spring, an analyst at the Heritage Foundation, said the administration should limit only warheads, not delivery vehicles, because such a limit could also restrict missiles that could be used as conventional weapons. "The administration is risking getting itself into trouble," he said.

But Daryl G. Kimball, executive director of the Arms Control Association, a research and advocacy group, said the treaty was an important step. "We're 20 years after the cold war," he said. "The only reason most of these weapons exist is to deter the use of them by the other."

Peter Baker reported from Washington, and Clifford J. Levy from Moscow.

http://www.nytimes.com/2009/12/03/world/europe/03arms.html

(Return to Articles and Documents List)

RIA Novosti – Russian Information Agency 3 December 2009

Russia, U.S. Could Sign New Strategic Arms Deal By Yearend — Expert

Russia and the United States will most likely sign a new strategic arms reduction treaty by the end of this year, a Russian political analyst has said.

Moscow and Washington are still negotiating a replacement for the Strategic Arms Reduction Treaty (START I), the basis for Russian-U.S. strategic nuclear disarmament, which expires on December 5.

"The [new] agreement will not be signed on Saturday, but there is a possibility that it could be signed as early as mid-December," Alexei Arbatov, director of the Center for International Security Studies at the Moscow State Institute of International Relations, said during a video conference between Moscow and Washington on Wednesday.

START I commits the parties to reducing their nuclear warheads to 6,000 and their delivery vehicles to 1,600 each. In 2002, a follow-up strategic arms reduction agreement was concluded in Moscow. The document, known as the Moscow Treaty, envisioned cuts to 1,700-2,200 warheads by December 2012.

An outline of the new pact was agreed during the Russian and U.S. presidents' bilateral summit in Moscow in July and includes cutting their countries' nuclear arsenals to 1,500-1,675 operational warheads and delivery vehicles to 500-1,000.

Russian and U.S. experts have held several rounds of talks on the new document since July, and have repeatedly expressed hope that the replacement for START I could be ready by December 5 deadline.

However, the U.S. Department of State said on Tuesday that the draft of the new treaty would most likely be ready by the end of December.

"It is not a tragedy that the new treaty is not signed by December 5. The tragedy, or a hard blow, to put it mildly, would be if the new treaty is not signed by May next year," Arbatov said.

He said an international conference will be held in May to discuss a new non-proliferation treaty and "all nuclear states are expecting the Russia-U.S. deal, which they have been promised."

"If the [new START] treaty is not signed by then, the conference will be a failure... and we might as well forget about a new non-proliferation regime, with all foreseeable consequences," Arbatov concluded.

MOSCOW, December 3 (RIA Novosti)

http://en.rian.ru/russia/20091203/157075375.html

RIA Novosti – Russian Information Agency

4 December 2009

Russia Opposes Monitoring Of Missile Plants Under New Deal With U.S.

Russia insists that the monitoring of missile manufacturing facilities should not be included in a new strategic arms reduction deal to replace the START I treaty, a source said on Friday.

With the expiration of the Strategic Arms Reduction Treaty (<u>START I</u>) on December 5, U.S. inspectors left on Friday a machine building plant in the city of Votkinsk, located about 1,000 kilometers (621 miles) east of Moscow, to end their monitoring mission at the missile manufacturing facility, which lasted for over two decades.

A source close to ongoing Russia-U.S. talks on a replacement to the START I treaty said Moscow wants the new deal to not include monitoring of the Votkinsk plant, as Russian inspectors have not been monitoring similar facilities in the U.S. since 2001 and "there are plenty of other arms control measures that could be implemented by both sides."

Washington insists on the continuation of monitoring at the Votkinsk plant, which produces all Russian intercontinental ballistic missiles (ICBMs), including advanced Topol-M and RS-24 missiles.

The U.S. also wants to establish closer monitoring of Russia's mobile Topol-M systems.

Under the Intermediate-Range Nuclear Forces Treaty (INF) concluded between the United States and the Soviet Union in 1987, the missile production facility at Votkinsk was selected for long-term on-site monitoring by U.S. inspectors.

The corresponding site for the Soviet Union in the United States was the Hercules missile production facility in Salt Lake City, Utah, which Russian inspectors left in 2001 after the last American-made ICBMs rolled off the assembly line as the U.S. decided to produce solely long-range cruise missiles.

The 1991 Strategic Arms Reduction Treaty, the core of Russian-U.S. nuclear disarmament, expires on Saturday.

Presidents Dmitry Medvedev and Barack Obama announced at their first meeting in April that the two countries would replace the START 1 treaty as part of their efforts to "reset" bilateral ties, which have been strained in recent years.

Moscow and Washington have been in intensive negotiations since July, when the presidents agreed the treaty's outline, which included cutting nuclear arsenals to 1,500-1,675 operational warheads and delivery vehicles to 500-1,000.

Officials in Moscow and Washington said recently the new pact is unlikely to be ready by December 5, but expressed the hope that the document would be signed by the end of the year.

The chief of the Russian General Staff said earlier that the ongoing talks had run into disagreements on inspection and verification procedures.

Russian and U.S. negotiators are expected to meet in Geneva on Saturday for the next round of talks on the preparation of the new arms reduction document.

MOSCOW, December 4 (RIA Novosti)

http://en.rian.ru/mlitary news/20091204/157099260.html

(Return to Articles and Documents List)

Bloomberg.com 4 December 2009

U.S., Russia Pledge Arms Cooperation as START Expires

By Lucian Kim

Dec. 4 (Bloomberg) -- The U.S. and Russia pledged to continue cooperating on weapons control after failing to reach a new agreement to replace the 1991 Strategic Arms Reduction Treaty, which expires tomorrow.

Presidents Barack Obama and Dmitry Medvedev pledged "to work together in the spirit of the START treaty," according to a joint statement e-mailed by the Kremlin today.

The two sides "continue to make progress" on a new treaty and the two leaders spoke on the phone today, White House press secretary Robert Gibbs told reporters. Talks will continue in Geneva tomorrow and may last for several days, state-run RIA Novosti reported, citing a senior Russian diplomat.

Obama and Medvedev have made a new arms accord a priority as they try to "reset" relations that reached a post-Cold War low under George W. Bush. The Czech government today said it is willing to host an Obama-Medvedev summit next week if asked. Obama, who has met the Russian president four times this year, laid out his vision for a nuclear-free world when visiting Prague in April.

The U.S. and Russia have disagreed over the presence of U.S. inspectors at a missile-production plant, RIA said. The 20 inspectors, who have been at the Votkinsk missile plant since 1988, are now leaving the facility, Interfax reported, citing an unidentified diplomat in Moscow.

Bush Era Irritant

Obama and Medvedev called for a reduction of nuclear warheads by as a much as a third during a July summit in Moscow. The two presidents agreed to cut their nuclear arsenals to between 1,500 and 1,675 warheads and between 500 and 1,100 delivery vehicles. Current limits allow a maximum of 2,200 warheads and 1,600 launch vehicles.

Obama scrapped Bush administration plans to base a missile- defense system in Poland and the Czech Republic, removing one of the main irritants in U.S. relations with Russia.

http://www.bloomberg.com/apps/news?pid=20601087&sid=aIgewL8A3FiU&pos=9#

(Return to Articles and Documents List)

RIA Novosti – Russian Information Agency

2 December 2009

N.Korea Not Ready To Resume Nuclear Talks - Russian Senator

The North Korean leadership is not yet ready resume six-party talks on its nuclear program, the speaker of the upper house of Russia's parliament said after his visit to the country.

The six-party talks on ending the North Korean nuclear program came to a halt in April when Pyongyang pulled out of the negotiations in protest against the United Nations' condemnation of its missile tests.

"No, they are not yet ready [to resume talks]," Sergei Mironov said, commenting on his visit to the country last week. He said that at the meetings, North Korean officials "adopted quite a harsh negotiating tone."

During his visit, Mironov met with Prime Minister Kim Yong Il, Chairman of the Supreme People's Assembly (SPA) Choe Thae Bok and President of SPA Presidium Kim Yong Nam.

The Russian official said that he did not discuss a possible resumption of North Korean nuclear tests during his visit.

The country is banned from conducting nuclear or ballistic missile tests under UN Resolution 1718, adopted after North Korea's first nuclear test on October 9, 2006.

However, Pyongyang carried out a second nuclear test on May 25 this year, followed by a series of short-range missile launches, and has threatened to build up its nuclear arsenal to counter what it calls hostile U.S. policies.

The move led to the UN imposing new sanctions on North Korea banning the import and export of nuclear material and all weapons except small arms.

MOSCOW, December 2 (RIA Novosti)

http://en.rian.ru/world/20091202/157069523.html

(Return to Articles and Documents List)

Yonhap News – South Korea 3 December 2009

U.S. Lays Out Goals Ahead Of Talks With N. Korea

By Sam Kim

SEOUL, Dec. 3 (Yonhap) -- The top U.S. diplomat in South Korea on Thursday laid out the goals her country seeks to achieve when its special envoy on North Korea visits Pyongyang next week to revive multinational talks aimed at denuclearizing the Korean Peninsula.

President Barack Obama's senior North Korea envoy, Stephen Bosworth, is set to fly into Pyongyang on Dec. 8 for a meeting with North Korean Vice Foreign Minister Kang Sok-ju.

Kathleen Stephens, U.S. ambassador to South Korea, told a forum here that the trip will "take place in the context of the six-party talks with the purpose of facilitating early resumption of the six-party talks," which include the two Koreas, Japan, Russia, China and the U.S.

The trip will also focus on securing North Korea's reaffirmation of a 2005 six-party agreement, she said, adding it includes Pyongyang's "commitment to the verifiable denuclearization of the Korean Peninsula in a peaceful manner."

The agreement calls for the North's nuclear dismantlement in return for hefty economic aid, diplomatic recognition and establishment of a permanent peace regime to replace the armistice that ended the 1950-53 Korean War.

Stephens, however, ruled out the issue of U.S. forces in South Korea as part of the negotiations between her country and North Korea, which has called them a threat to its security and called for their withdrawal.

"We've always been clear that when we talk about the peace regime, or peace treaty, peace agreement, the issue of the U.S.-R.O.K alliance is not on the table," she said. "That is a lasting commitment we have, and that is not on the table."

The R.O.K stands for the Republic of Korea, South Korea's official title.

About 28,500 U.S. troops are stationed in South Korea as a deterrent against North Korea, which was slapped with a fresh set of U.N. sanctions when it conducted its second nuclear in May this year.

http://english.yonhapnews.co.kr/national/2009/12/03/90/0301000000AEN20091203003000315F.HTML

(Return to Articles and Documents List)

Press Trust of India 2 December 2009

Indigenous Nuke Submarine In Two Years: Navy Chief STAFF WRITER

New Delhi, Dec 2 (PTI) India's first indigenous nuclear submarine, INS Arihant, will be inducted into the Navy fleet in two years.

"INS Arihant will be inducted into the Navy in two years or so," Navy chief Admiral Nirmal Verma told reporters here ahead of the Navy Day on December 4.

However, Verma refused speak about Russia leasing out its Akula-II 'Nerpa' nuclear-powered submarine to India for 10 years. "I have no response for that," he said to queries on when Nerpa would join the Indian Navy.

Arihant, the first submarine under the Advanced Technology Vessel (ATV) programme, was launched for sea trials on July 26 this year at a naval yard in Visakhapatnam by Prime Minister Manmohan Singh's wife Gurcharan Kaur.

"It (Arihant) demonstrates a quantum leap in the shipbuilding capabilities of the country. It is a nuclear-powered submarine, which is indigenously designed and constructed," Verma said.

http://www.ptinews.com/news/404583 Indigenous-nuke-submarine-in-two-years--Navy-chief

(Return to Articles and Documents List)

Indian Express

2 December 2009

Obama Warns Of Pak Nukes Falling Into Terror Hands

Washington: US President Barack Obama described the Pak-Afghan border as the "epicentre" of violent extremism and said stakes are higher within a nuclear-armed Pakistan with the danger of its nuclear weapons falling into the hands of terror groups.

"Our security is at stake in Afghanistan and Pakistan", Obama said while unveiling his much-awaited Af-Pak policy. "This is the epicentre of violent extremism practiced by al Qaeda. It is from here that we were attacked on 9/11, and it is from here that new attacks are being plotted as I speak. This is no idle danger; no hypothetical threat," he warned.

Obama sounded the alarm of nuclear weapons in Pakistan falling into wrong hands. "The people and governments of both Afghanistan and Pakistan are endangered. And the stakes are even higher within a nuclear-armed Pakistan, because we know that al Qaeda and other extremists seek nuclear weapons, and we have every reason to believe that they would use them," he said.

http://www.indianexpress.com/news/obama-warns-of-pak-nukes-falling-into-terror-hands/548889/

(Return to Articles and Documents List)

Nuclear Power Daily 2 December 2009

US Says Cannot Meet Deadline To Screen Cargo For Nukes

By Staff Writers

Top US security official Janet Napolitano on Wednesday admitted her government will fail to meet a 2012 deadline to scan all incoming ship cargo, measures designed to prevent a nuclear terror attack.

The Homeland Security Secretary said she would seek an extension to Congress's deadline, citing inadequate technology and multi-billion-dollar costs involved in screening the 10 million containers that enter the United States each year.

"In order to implement the 100 percent scanning requirement by the 2012 deadline, (the Department of Homeland Security) would need significant resources for greater manpower and technology, technologies that do not currently exist, and the redesign of many ports," she said.

"These are all prohibitive challenges that will require the Department to seek the time extensions authorized by law."

She said the cost of meeting the deadline would run to at least 168 billion dollars, or eight million dollars for each of the 21,000 shipping lanes into the United States.

The measures had been designed to ensure the detection of weapons of mass destruction brought into US ports, which are described by experts as a soft underbelly of US security.

In testimony prepared for the Senate transport committee, Napolitano admitted that rolling out existing technology would also hit trade.

"Expanding screening with available technology would slow the flow of commerce and drive up costs to consumers without bringing significant security benefits."

Her comments came as the government's own accountability office on Tuesday released a damning report on Homeland Security's "limited progress" in screening cargo, which left the "feasibility of 100 percent scanning largely unproven."

While the Department of Homeland Security has long hinted that the 2012 deadline would not be met, Napolitano's comments are likely to ease concerns among foreign governments that non-compliant ports could be blacklisted.

Napolitano hinted that a stripped-down version plan may now be needed, one that would screen cargo from a handful of the 700 ports linked to the United States.

"It is also important to keep in mind that about 86 percent of the cargo shipped to the United States is sent from only 58 of those more than 700 ports," she said.

http://www.nuclearpowerdaily.com/reports/US says cannot meet deadline to screen cargo for nukes 999.html (Return to Articles and Documents List)

RIA Novosti – Russian Information Agency 3 December 2009

Moscow Region To Get Its Own Collider

The attention of physicists worldwide is currently riveted on the European Organization for Nuclear Research (CERN), which is operating the Large Hadron Collider (LHC).

The LHC is expected to become the main impetus and pinnacle of achievement in high-energy physics research; however, it is already clear that answers to many questions will not come via the LHC.

For example, it will be impossible to observe the process of the transition of very dense nuclear material to a new state - quark-gluon plasma - a mixed phase existing in the first moments after the Big Bang. There is a theory that that was when quarks existed in a free state. Then they grouped together and protons and neutrons appeared. In the LHC, this process is skipped because the energy of the particles' interaction is too high.

Alexei Sisakyan, director of the Joint Institute for Nuclear Research (JINR) at the international scientific center in Dubna, says that this may be compared to boiling water. If we can see how water (heavy nuclei) changes into steam (quark-gluons) at 100 degrees, then at 1000 degrees, this process is invisible - it takes a fraction of a second for the water to evaporate and observing it is impossible.

Scientists hope to register the transition of quarks into protons and neutrons in the collider that is planned to be built in the Moscow-region town of Dubna. The new physical device has been named NIKA (a high-energy heavy ion collider). A one-of-a-kind accelerator complex will be created. It will consist of a cascade of four accelerators, one of which is already built and activated - the superconductive ion synchrotron-nuclotron.

The collider developers intended for the particles to be accelerated in several of its coils in one direction, picking up more and more speed. In the final stage, they will travel in the opposite direction in the two coils. Collision points for particle beams are anticipated in several places along these coils. It is expected that free quarks will be seen during the time of their collision (currently quarks exist only in clusters of three) and it will be possible to observe the process of their attractive interaction with one another.

Scientists are counting on being able to use the new installation to research the properties of the transition of matter from one phase state to another, as well as the conditions associated with the transition to this phase (if indeed such a transition takes place), during which the nuclear and quark-gluon material may coexist. It is not improbable that such conditions currently exist in the cores of neutron stars.

In the NIKA collider, particles of the nuclei of gold molecules will be collided, accelerated towards one another at an energy of 5.5 gigaelectronvolts. Scientists will study the consequences of the collision with the aid of a Multi Purpose Detector (ÎĐD) installed at the "point of collision" of the beams.

While the length of CERN's LDC is 27 kilometers, the NIKA is only 251 meters long. The basis for its design was the synchrophasotron built in Dubna back in 1957 - one of the largest charged-particle accelerators in the world.

It was specifically in the Soviet Union that the idea of building a collider was first aired. The first prototype was built in Novosibirsk and had a capacity of tens of gigaelectronvolts. This accelerator is still used in research.

Today in Dubna, the updating of the nuclotron is in full swing - the vacuum in the coil has been fundamentally improved; the cryogenic unit, which is the heart of the superconducting accelerator, has been fully renovated; the power system has been upgraded; modern diagnostic equipment is being installed and a new ion source is being made.

NIKA will be a one-of-a-kind world-class installation and will be of interest to other physics centers. The development of NIKA will enable the return of many scientists to Russia, particularly those young scientists that participated in the development of the LHC. The construction of modern experimental installations is impossible without detailed technical planning, for which qualified design engineers are needed. There was a mass exodus of such experts to the West when the Russian scientific community fell apart. Today, their high qualifications are in demand again in Russia.

Yury Zaitsev is acting academic adviser at the Russian Federation Academy of Engineering Sciences.

The opinions expressed in this article are the author's and do not necessarily represent those of RIA Novosti.

MOSCOW. (Yury Zaitsev for RIA Novosti)

http://en.rian.ru/analysis/20091203/157086826.html