# US Nuclear Negotiator Suggests Easing Sanctions on Iran

Welcome to As It Is, from VOA Learning English! I'm Mario Ritter. Today, we hear from a top-level American State Department official. And we get her thoughts about measures meant to punish Iran for its nuclear activities.

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Wendy Sherman suggests ending some restrictions on Iran in return for progress in talks on its nuclear program. Then, we hear about the world of the very small -- the world of nanotechnology. Researchers are trying to create super plastics by making changes to molecules.

Recently, VOA's Persian Service spoke to the top nuclear negotiator for the United States. Undersecretary of State Wendy Sherman talked about her part in discussions between world powers and Iran on its nuclear program. June Simms has more.

The most recent nuclear talks took place earlier this month in Geneva, Switzerland. The negotiations involved Iran and six other nations, or what officials are calling the P5 + 1 nations. They are the five permanent members of the United Nations Security Council plus Germany.

The October talks were called a good first step. So much so, that Ms. Sherman says it might be time to reconsider sanctions -- measures designed to punish Iran for its nuclear activities.

"We think this is a time for a pause, to see if these negotiations can gain traction."

The idea is that a meaningful nuclear agreement can be reached. The undersecretary of state says President Obama and the State Department will have to work with members of Congress to lift some sanctions. She says serious discussions are taking place.

"Some sanctions relief of some sort is important for a first step."

Her statement comes as distrust between the two sides continues.

Iran has worked for years to enrich large amounts of uranium. It says the effort is aimed at producing only electricity. Western nations, however, say they have evidence that Iran's nuclear program is working to produce highly enriched fuel for nuclear weapons.

Over the years, Iran has tested missiles that are able to carry a nuclear weapon great distances. The United Nations Security Council has passed resolutions ordering sanctions against Iran. Several other nations and the United States have put their own measures in place.

Undersecretary Sherman spoke about the level of distrust weeks ago during a meeting with members of Congress.

"We know that deception is part of the DNA, we want to make sure that we can put some time on the clock for those comprehensive negotiations."

Iranian newspapers denounced her words recently. Some in Iran have called the comments an "insult that adds another brick to the wall" of mistrust between the two sides.

This year, Hassan Rouhani, took office after winning Iran's presidential election. He is widely considered a moderate in Iranian politics.

Wendy Sherman told VOA that the United States believes President Rouhani when he says Iran does not want nuclear weapons. But she says that Iran now needs to take real steps to show that those words are meaningful.

The next talks on Iran's nuclear program are to take place early next month.

I'm June Simms.

From the world of international diplomacy, we turn our attention to the world of common materials. One of the most common materials is plastic.

Plastic is everywhere. The material can be used to manufacture excellent containers. But scientists are now able to make plastic even better. They are doing this with nanotechnology -- engineering that takes place on the level of atoms and molecules. Christopher Cruise has this report from VOA's Greg Flakus.

Graphene is a one-atom thick layer of the mineral graphite. This extremely thin material could have many uses, making some everyday things better.

Researchers in Texas are testing the material. Graphene can be part of a plastic composite, or combination, that makes containers airtight. This means it could improve containers for substances as dissimilar as natural gas and soft drinks.

It all starts with a very thin film of plastic. Changsheng Xiang is a nanotechnology researcher at Rice University in Houston, Texas. He says the composite plastic with graphene can be stretched many times its normal size without breaking.

"The film is very strong and is also very flexible. So you see we can stretch it to this extent and, actually, it can go to 700 percent of its original."

Researchers have made the plastic composite strong by adding thin pieces, or ribbons, of graphene. The ribbons block passageways between molecules that normally exist in plastic. The researchers found that adding these nano-ribbons makes it 1,000 times harder for gases to escape.

Rice University Chemistry Professor James Tour says making graphene in large amounts is not yet practical. But he says one day it may be cost less than other methods for making gas-leak resistant containers.

When added to something like a plastic soda bottle, the graphene would hold the carbon dioxide gas inside the bottle for much longer. It can also keep oxygen out. This may keep foods fresher for longer periods.

Other uses could include making containers that hold natural gas for shipment, limiting loss. Fuel tanks using the technology could be made in large unusual shapes to fit existing spaces in vehicles instead of taking up space as big tanks.

"Instead of having the tank in a sausage shape that takes up a lot of area of the trunk, is to make the tank conform, in other words, make it like tubes, make it like intestines that could snake through different areas."

James Tour has been working with researchers in Hungary, Slovenia and India. He says his team will continue testing graphene. The team also is working with private companies to develop it for use in industry. That makes researcher Changsheng Xiang happy. He says such materials engineered on such a small level are easy to ignore, but they are very important.

"Nanotechnology really affects peoples' lives, even though you cannot see it with your eyes."

I'm Christopher Cruise.

Finally, October 30th marks the birth anniversary of the second president of the United States, John Adams. He was born in Braintree, Massachusetts on this date in 1735.

And that is our show for today. Thank you for listening. Stay with VOA for the latest world news at the top of the hour, Universal Time.