

From: <theroyprocess@cox.net>
To: <VOGTLE_EIS@nrc.gov>
Date: 12/29/2007 7:44:01 PM
Subject: Chernobyl 20th Pictures - The Roy Process

Chernobyl 20th Anniversary Pictures

NukeNet Anti-Nuclear Network (nukenet@energyjustice.net)
WARNING! Contains Graphic Pictures! Not For the Faint of Heart!

The church bells in the Ukraine are ringing in remembrance of Chernobyl..
Every member of Congress should watch the following film before
authorizing another nuclear power plant. Click play after the first few pictures.

<http://todayspictures.slate.com/inmotion/essay%5Fchernobyl/?GT1=8019>

ECRR Chernobyl 20 Years On - Internet Book - Free Download
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Letter to the Editor,

The aim of nuclear power is spent fuel rods (nuclear waste) from
which weapons are made. Atom bombs, easier are dirty bombs,
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40 sovereign countries have nuclear power.

Dr. John Gofman says there is no safe dose of man-made ionizing
radiation. We should not add to it with new nuclear power plants.
Nuclear power is the most dangerous form of electricity. It is the
heat which makes steam that powers electric generators. Albert
Einstein once said, "Nuclear power is one hell of a way to boil
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Liability is paid by the tax payer under the Price/Anderson Act.
Electric rate payers subsidize nuclear power and waste disposal.
There is big money and political power in nuclear waste, in killing
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NEW VIDEO - Current version : YouTube - The Roy Process
http://www.youtube.com/watch?v=_v7030VAeLA

Dennis F. Nester

4510 E. Willow Ave.
Phoenix, AZ 85032-6447
602-494-9361

THE ARIZONA REPUBLIC
Sunday, November 4, 1979
Process may kill radiation threat
By CLARENCE W. BAILEY
Copyright, 1979. The Arizona Republic

TEMPE -- An internationally recognized Arizona State University physicist disclosed Saturday that he has discovered a method for treating nuclear reactor and other highly dangerous radioactive wastes so they will be harmless.

The procedure was conceived by Dr. Radha R. Roy professor of nuclear physics who is the designer and former director of nuclear-physics research facilities at the University of Brussels In Belgium. and at Pennsylvania State University.

Roy said the process "very roughly can be described in part as a reversal of phenomena that occur during a nuclear fission chain reactions.

The scientist said the process is the culmination of many years research

"Theoretical analysis and mathematical calculations confirm the process is highly effective and that any level of radio activity, from weak to strong. Can be reduced to harmless state in a short period of time," Roy said.

The thing that is so encouraging is that the method can cancel radioactivity rapidly enough for it to be of real practical value in disposing of dangerous wastes in storage and as they are being produced, Roy said.

One treatment-plant design which Roy has devised could reduce the radioactivity of even the most dangerous wastes with half-lives or 15,000 to 40,000 years to a level where they would be essentially harmless in about 20 days.

A half-life is the time required for a quantity of radioactive material to lose one half of its radioactive strength.

Roy, who left his native Calcutta, India. to do advanced nuclear-physics research at the University of London during World War II, said all the necessary theoretical and quantum electrodynamical work on the process has been completed.

"There remains perhaps as much as a years work in calculating parameters and preparing data that will be needed for the engineering design of a pilot

radio-active waste-treatment plant' he said.

Roy is known internationally among scientists for his many advanced research contributions in the field of nuclear fission fragments and as the author of de-finitive graduate and post-doctoral textbooks used in universities all over the world. "During the 37 years since the first fission chain reaction there has been no progress whatever toward the development of a method of deactivating radioactive waste or even for storing it safely," he said.

"The collections of dangerous nuclear wastes in this country alone have now reached a total of at least 75 million gallons, and it is growing daily."

He estimated an operational nuclear waste-treatment plant could cost \$40 million or more. By contrast, he noted, Congress last summer appropriated \$80 million just to build more concrete storage bunkers to hold only a part of the growing accumulation of nuclear wastes.

"Since it is so very dangerous to ship strongly radioactive materials it would certainly be sensible to build a treatment plant for each reactor so radioactivity could be killed out before the waste is transported anywhere" the scientist said.

Roy said that the national danger from nuclear waste is "extremely serious" and urged the federal government to build treatment plants near established nuclear waste storage areas. Other treatment plants should be constructed to kill out the radioactivity in the wastes from the nation's weapons programs and from its educational, industrial, medical and experimental research facilities he said.

Roy warned that waste containing plutonium 239 is "critically dangerous" because of its extremely high radioactivity and also because it is the essential ingredient in an atomic bomb.

The treatment process not only will render plutonium 239 harmless in a remarkably short time, he said, but also will keep deactivated plutonium from ever being reprocessed to make an illegal atomic weapon.

Roy further warned that the United States not only is exporting nuclear energy when it sells reactor technology to foreign nations, but also is sending overseas the potential for making illegal bombs out of plutonium from reprocessed nuclear wastes.

The treatment method will guarantee to foreign countries that use nuclear fission energy that they can maintain an environment free from radioactivity, and it also could guarantee to the world that there will be no reuse of plutonium in an unauthorized weapon, he said. Careful theoretical and mathematical analysis have assured him that the nuclear waste- treatment process will function reliably and with rapidity and high efficiency, he said.

"But the existence of this promising nuclear waste-treatment procedure should not be construed in any sense to mean that nuclear fission power reactors are safe" Roy said. The contractor who built Three Mile Island's reactor-like those who built the other 71 reactors now operational in the United States -- expected that plant to function normally for 30 years in total safety without event .But the fact is that it went out of control and nearly created a meltdown which could have destroyed a large part of the human habitat of east-central Pennsylvania," Roy said.

Neutralize & Eliminate Nuclear Waste

The Roy Process Brief Description

from the web site: <http://members.cox.net/theroyprocess>

Is there a safe process to get rid of nuclear waste? One possible solution is a process invented by Dr. Radha R. Roy, former professor of Physics at Arizona State University, and designer and former director of the nuclear physics research facilities at the University of Brussels in Belgium and at Pennsylvania State University.

Dr. Roy is an internationally known nuclear physicist, consultant, and the author of over 60 articles and several books. He is also a contributing author of many invited articles in a prestigious encyclopedia. He is cited in American Men and Women of Science, Who's Who in America, Who's Who in the World and the International Biographical Centre, England. He has spent 52 years in European and American universities researching and writing recognized books on nuclear physics. He has supervised many doctoral students.

Roy invented a process for transmuting radioactive nuclear isotopes to harmless, stable isotopes. This process is viable not only for nuclear waste from reactors but also for low-level radioactive waste products.

In 1979, Roy announced his transmutation process and received international attention. The Roy process does not require storage of radioactive materials. No new equipment is required. In fact, all of the equipment and the chemical separation processes needed are well known.

What's the basis for the Roy Process? If you examine radioactive elements such as strontium 90, cesium 137 and plutonium 239, you will see that they all have too many neutrons. To put it very simply, the Roy process transmutes these unstable isotopes to stable ones by knocking out the extra neutrons. When a neutron is removed, the resulting isotope has a considerably shorter half-life which then decays to a stable form in a reasonable amount of time.

How do we knock out neutrons? By bombarding them with photons (produced as x-rays) in a high- powered electron linear accelerator. Before this process, the isotopes must be separated by a well-known chemical process.

It is feasible that portable units could be built and transported to hazardous sites for on-site transmutation of nuclear wastes and radioactive wastes.

To give an example, cesium 137 with a half-life of 30.17 years is transformed into cesium 136 with a half-life of 13 days. Plutonium 239 with a half-life of 24,300 years is transformed into plutonium 237 with a half-life of 45.6 days. Subsequent radioactive elements which will be produced from the decay of plutonium 237 can be treated in the same way as above until the stable element is formed.

From the Patent application claim:

<http://members.cox.net/theroyprocess/additional-uses-royprocess.html>

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Then President Ronald Reagan signed the 1982 Nuclear Waste Policy Act which made "geologic isolation" (burial) of nuclear waste, federal policy, putting viable alternatives in scientific limbo. Now after wasting hundreds of billions of tax payers money on junk science, nuclear waste has leaked into our precious ground water.

Dr. Roy was right. There IS only one way to eliminate high level nuclear waste and that is to photon transmute it and produce electricity.

No need to move spent fuel rods to Yucca Mt., vitrification, dry casks, etc.

Patent Examiner Comments on the Roy Process Invention
<http://fredtalk.fredericksburg.com/showflat.php?Cat=&Number=604817&page=0&view=collapsed&sb=5&o=2&fpart=1>
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As a patent examiner, the explanation as to why the Roy process was not

patented makes perfect sense and is not paranoid at all. There is no reason to get a patent unless you have the money to defend it in court. Large corporations are notorious for stealing them. Also, patent applications in 1979 were held confidential until they were issued as patents. The inventor requiring a non-disclosure agreement of a corporation to view the application is also perfectly reasonable. It is naive to believe that Reagan was not encouraged by large corporations to change the law regarding acceptable nuclear waste disposal methods to benefit them in order to squash any new method like the Roy process. These kinds of things happen all the time.

As to the merits of the Roy process, it seems to me on it's face to have potential to change nuclear waste into something less dangerous. I don't know enough about nuclear physics to really give an detailed response, but I do know that nuclear accelerators do change atomic structure and that bombarding nuclear waste would certainly change it into something else.

Federal Register Notice: 72 FR 52586
Comment Number: 86

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