

New England Coalition on Nuclear Pollution, Inc.

Brattleboro, Vermont 05301

Phone

October 15, 1993

Dear Brian,

Enclosed is information about a conference
happening October 24 - featuring Vladimir
Chernomysenko.

I also also included background on
Dr. Chernomysenko.

Please call me.

Thank you,

Workshops

Generic Problems with Boiling Water and Pressurized Water Reactors

- Robert D. Pollard, Union of Concerned Scientists
- ### *High and Low Level Radioactive Waste*
- Judith H. Johnsrud, PhD, Environmental Coalition on Nuclear Power

Whistleblower Panel

- Michael Mulligan, Vermont Yankee;
- Paul Blanche, Millstone; and others

International Nuclear Market

- Karl Grossman, investigative journalist, Sag Harbor, New York

Closed Reactors and Decommissioning

- Ernest Fuller, Saxton research reactor; PA
- Kate Harris, Yankee Rowe reactor, MA (citizen activists)

Alternative Energy and Renewables

- Armond Cohen, Conservation Law Foundation, Boston, Massachusetts

Citizen Radiation Monitoring at Seabrook

- Sandy Gavutis, Debbie Grinnell, C-10

Working with the Media (2 workshops)

- Scott Denman, Safe Energy Communication Council, Washington, DC

Overview of Current NRC Activities

- Paul Gunter, Nuclear Information Resource Service, Washington, DC

Can you help?

- ☐ Registration table
- ☐ Tape record a workshop
- ☐ Donate to scholarship fund
- ☐ Take notes in a workshop
- ☐ Bring a tape recorder

Please send this conference information to:

Name _____

Address _____

City, State, Zip _____

Forwarding and
Return Address correction requested

New England Coalition on Nuclear Pollution
Brattleboro, Vermont 05302

New England Safe Energy Conference: Energizing the Grassroots Grid

Sunday, October 24, 1993

Bedford, New Hampshire
Sheraton Tara Wayfarer Inn

A conference for New England
safe energy activists

*Celebrating 20 years since a new
civilian nuclear power plant was
ordered and built in the
United States,
Planning for the next 20 years of
no new nukes,*



And how to shut down the old ones.

Background

October 1993 marks the 20th anniversary since a new civilian nuclear reactor was ordered and built in the United States.

To mark this momentous occasion, the New England Coalition on Nuclear Pollution invites you to attend this conference to explore the issues which remain in the sixth decade of the nuclear experiment and work together toward a safe energy future.

To inspire us in our continued work, **Dr. Vladimir Chernousenko**, the chief physicist of the Chernobyl cleanup, will address the conference after lunch.

Schedule

8:30 - 10:00 - Registration

9:00 - 9:45 - NECNP Annual Meeting

10:00 - 10:30 - Keynote: "The Safe Energy Movement: the Miles We Have Come and the Promises We Have Yet to Keep" Robert A. Backus, Esq.

10:45 - 12:15 - Workshops (see list over)

12:15 - 1:15 - Lunch

12:45 - 1:45 - Dr. Vladimir Chernousenko, who directed the cleanup effort in the 10-kilometer zone around the Chernobyl reactor. He will tell us the unvarnished truth about the scale and consequences of the Chernobyl nuclear disaster.

2:00 - 3:30 - Workshops (see list over)

3:45 - 4:15 - Plenary: "Putting it all Together: Where do We Go From Here?" NECNP President James R. Perkins

4:15 - 5:00 - Closing and Awards

5:00 - ? - Reception in Terrace Room, continued conversation; cash bar available.

Hotel Information

The Sheraton Tara Wayfarer Inn has made rooms available at a special conference rate.

A single room is \$80 a night, a double room is \$90 a night, plus tax.

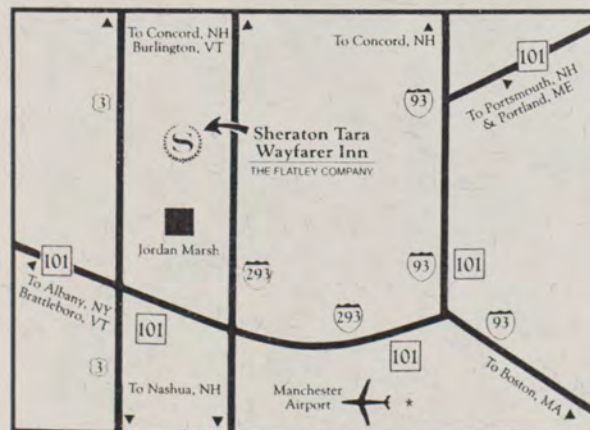
Please make your reservations directly with the Sheraton. Identify yourself as being with the New England Safe Energy Conference.

Make your reservations by calling (603) 622-3766, and ask for the Reservation Department. Please reserve early to ensure a room.

Additionally

- Look for *The Great New England Energy Show*, the New England Coalition's mobile solar and alternative energy traveling science museum.
- Dr. Donnell W. Boardman, M.D., of Acton, MA, will be on hand to discuss "The Health Effects of Low Level Radiation."
- Questions can be answered by calling conference coordinator Annette Larson at (802) 257-0336.

Map



*Complimentary airport transportation daily.

Registration Information

* The registration fee of \$25 covers the cost of the conference, a buffet deli-style lunch, and a one-year membership to the New England Coalition on Nuclear Pollution.

* Please pre-register, to help us determine numbers for lunch.

* Registrations for the conference will be taken at the door for \$30.

* A special package for those wishing to attend only the luncheon address is available for \$15, which includes lunch. **Please call early to reserve:** [redacted] before October 20, 1993.

* Donations to the scholarship fund are appreciated.

Registration form, detach and mail before October 18

Name _____

Address _____

City, State, Zip _____

Phone _____

Amount enclosed: _____
(\$25 each, plus scholarship donation)

Please make check payable to:

New England Coalition
on Nuclear Pollution

And mail to: [redacted]
Brattleboro, Vermont 05302

"Fission energy is safe only if a number of critical devices work as they should, if a number of people follow all of their instructions. . . The enormous quantities of extremely dangerous material must not get into the hands of ignorant people or desperados. No acts of God can be permitted."

Dr. Hannes Alfvén
Nobel Laureate
Physics, 1970

"No one seriously doubts the overwhelming evidence that ionizing radiation causes a wide variety of injuries to the health of human beings. Many of these injuries either are fatal or guarantee a life of misery."

Dr. John Gofman
Radiation & Human Health

"Nuclear power is not only too slow; it is the wrong kind of energy source to replace oil... Arguing about what kind of new power station to build is thus like shopping for brandy to burn in the car or Chippendales to burn in the stove."

Amory & Hunter Lovins
*Energy/War:
Breaking the Nuclear Link*

History and Activities

The New England Coalition is a non-profit educational organization. It was founded in February of 1971 by several groups of citizens and scientists from Vermont and western Massachusetts concerned about the nation's growing civilian nuclear power program.

The Coalition participated as a full party in federal licensing proceedings for Seabrook, Vermont Yankee, and two other plants now cancelled. Beginning in 1973, our attorneys argued that the Seabrook plant is not safely sited, adequately designed, or properly built. We presented testimony showing that the plant is not safe, economical or needed, and that adequate emergency planning is not possible.

In 1990, the NRC waived its own rules regarding emergency planning in order to grant Seabrook an operating license. Such a course of action flies in the face of the claim that the industry and its regulators have learned the lessons of Three Mile Island. If the NRC can continue to reduce its own safety standards, everyone in the country will be at greater risk. The Coalition's appeal to the U.S. Supreme Court was denied.

Our legal efforts have also included interventions before the NRC to challenge Vermont Yankee's plans to increase — once in 1977 and again in 1987 — its on-site storage capacity for highly radioactive "spent" fuel.

Our most recent legal intervention was a petition, filed with the Union of Concerned Scientists, to shut down Yankee Rowe, the nation's oldest commercial reactor. In January of 1992, the plant was permanently closed.

Resources for public education include the Great New England Energy Show mobile unit, an extensive library of books and films, a speakers' bureau, and a newsletter. Coalition trustees and members have worked with numerous local, regional and national organizations in the quest for a safer energy future.

Beginning in 1989, the Coalition became actively involved in a lobbying and educational effort concerning radioactive waste "disposal" in Vermont. The Coalition helped to write Vermont's Act 296, an innovative and precedent-setting law, and has participated actively in rulemakings and all hearings, proceedings and workshops on the subject.

All of these efforts will continue with your help. Contributions are tax-deductible. Please join now.

New England Coalition on Nuclear Pollution

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Annette M. Larson

New England Coalition on Nuclear Pollution

Brattleboro VT 05302

I'd like to support the work of the New England Coalition on Nuclear Pollution. Enclosed please find a contribution.

_____ \$25 Individual membership

_____ \$40 Family membership

_____ \$50 _____ \$100

_____ \$250 _____ \$500

_____ \$1000 _____ other

_____ I would like to make a monthly
pledge of \$_____.

Name _____

Address _____

_____ Zip _____

Phone _____

The New England Coalition on Nuclear Pollution is a non-profit organization. Contributions are tax-deductible.

All contributors will receive the NECNP newsletter, *On the Watch*.

Printed on
100%



recycled
paper



New England Coalition on Nuclear Pollution

Your opportunity to oppose nuclear power

"For over fifteen years the New England Coalition has been in the forefront of public education and litigation about the grave dangers of — and alternatives to — nuclear power.

It is a uniquely aware and effective organization."

Dr. George Wald
Nobel Laureate
Physiology, 1967

Why the New England Coalition Opposes Nuclear Power

The problems of nuclear power have not been resolved. Hard questions concerning reactor designs, waste disposal, transportation of radioactive materials, health effects of exposure to low levels of radiation, plant decommissioning, and the proliferation of nuclear weapons have not received the careful attention they deserve. Federal regulation has been entirely inadequate.

Health

Radioactive materials are released into the environment daily by nuclear power plants and related facilities. Low doses of radiation have been shown to be far more dangerous than officially acknowledged. Epidemiological studies from England indicate that natural background radiation alone may be responsible for 65 to 95 per cent of all cancer and leukemia in children. Exposing people to additional radiation is not an acceptable cost of doing business with the "peaceful atom."

Need

The cost of building Seabrook forestalled realistic planning for a secure New England energy future. The region should fund and actively pursue conservation, cogeneration, efficiency and small-scale generating plants, especially those using renewable energy sources, to help guarantee the generating capacity and flexibility required for the electricity needs of a dynamic region.

Cost

Just as the visible costs of nuclear power have grown beyond reasonable bounds, there are other enormous costs that are hidden or as yet unmeasured. Direct federal subsidies, and federally legislated freedom from or limits to liability for private companies, hide the true costs of nuclear power. In addition, taxpayers and consumers will pay for waste storage and decommissioning long after the nuclear plants stop producing power.

Safety

The accidents at Three Mile Island and Chernobyl have demonstrated the dangers of the nuclear power experiment, but the true costs of these disasters have yet to be totaled. Reactors in the United States with major design flaws are allowed by the Nuclear Regulatory Commission (NRC) to continue to operate. In the Soviet Union, as many as half a million deaths from cancer and tens of billions of dollars in financial losses will be only part of the legacy of a moment's error at one plant.

Decommissioning

Nuclear plants are designed to produce power for 40 years, though none has yet reached that age and several have closed much earlier. After years of operation, the reactor and other equipment will have become so radioactive that the entire plant will have to be closed with much of it needing treatment as radioactive waste. The technology for safe decommissioning does not yet exist, but even if it did, the question of who will pay the costs would remain. Funds established by utilities are likely to prove inadequate. Several of the reactors in New England and the Yankee Rowe plant, just closed, are owned by companies with no other major assets. These would have good reasons to go quietly into bankruptcy, leaving states with the headache, expense and liability of permanent care.

Radioactive Wastes

Stockpiles of radioactive wastes, mostly from nuclear power plants, continue to grow. Both "high-level" and "low-level" wastes (as defined in federal law) contain materials with half-lives extending into the millions of years, for which no safe method of treatment, storage or disposal has yet been found. The highly politicized search for "solutions" to the waste problem has so far precluded the kind of thoughtful, thorough deliberation which would be required to reach an environmentally sound solution to the problem. Therefore, current efforts remain mired in engineering and political quicksand.

New England Coalition on Nuclear Pollution, Inc.

Brattleboro, Vermont 05301

FOR IMMEDIATE RELEASE
OCTOBER 8, 1993

FOR MORE INFORMATION

CHERNOBYL SCIENTIST TO SPEAK AT CONFERENCE

Dr. Vladimir Chernousenko, the Ukrainian physicist who supervised the Chernobyl reactor cleanup, will be the featured luncheon speaker on October 24, 1993 in Bedford, New Hampshire at the New England Safe Energy Conference: Energizing the Grassroots Grid.

Chernousenko, who was forced into exile for publishing details about the 1986 Chernobyl nuclear reactor explosion, will speak at the Sheraton Tara Wayfarer Inn, Bedford, NH beginning at 12:45 p.m. as part of a conference sponsored by the New England Coalition on Nuclear Pollution.

Dr. Chernousenko, who is now dying of radiation poisoning, reports that the amount of radiation released from the Chernobyl accident was equivalent to 1,000 Hiroshima bombs and contaminated over 100,000 square kilometers of land. This exceeds the amounts reported by the Soviet government at the time of the explosion.

The physicist also has reported details about the ongoing poisoning of the food, air and water used by millions of people; and the ever-increasing damage to the human immune system.

The information Chernousenko made public was considered treasonable by the Soviet government, and he has been living in exile in Germany for publishing details of his experiences in the 10-kilometer cleanup zone around the reactor.

MORE

Educating the Public in Clean Alternatives to Nuclear Power

CONFERENCE -- PAGE 2

This luncheon lecture is part of the "New England Safe Energy Conference: Energizing the Grassroots Grid" sponsored by the New England Coalition on Nuclear Pollution.

The conference will include workshops on alternative energy, radioactive waste, citizen radiation monitoring, and the national nuclear picture, among others.

The cost of the conference is \$25 in advance, \$30 at the door, and includes lunch. A special package for those just wishing to attend Dr. Chernousenko's lecture is available for \$15, which includes lunch. Please call to reserve space or for more information: [REDACTED]

"30"

NOTE TO MEDIA:

DR. CHERNOUSENKO WILL BE AVAILABLE FOR A PRESS CONFERENCE AT 3:00 PM, OCTOBER 24, 1993, AFTER HIS PRESENTATION TO THE PUBLIC.

PLEASE CHECK WITH THE MAIN DESK AT THE SHERATON FOR THE LOCATION OF THE PRESS CONFERENCE.

THE PHONE NUMBER AT THE SHERATON IS [REDACTED]
CONFERENCE COORDINATOR ANNETTE LARSON CAN BE REACHED AT THAT NUMBER ON THE DAY OF THE CONFERENCE.

Radiation and Public Health Project

Director [REDACTED] New York NY 10024 Telephone [REDACTED] Fax [REDACTED]
Assistant Director [REDACTED]

August 6, 1993

The Editor
Science
1333 H St. NW
Washington, DC 20005

Sir:

The recent surge of infectious disease in Russia reported in your July 23 issue supports the warnings made by Vladimir Chernousenko, the Ukrainian physicist chosen to supervise the "clean-up" of Chernobyl, that the true levels of radiation released were sufficient to make 100,000 square km in Belarus and the Ukraine uninhabitable. Zhores Medvedev in his *Legacy of Chernobyl* has estimated that 90 million Russians have eaten radioactive food shipped to all regions of the former Soviet Union. In *Chernobyl: Insight from the Inside* (Springer Verlag, Berlin, 1991) Chernousenko asserts that the accident released the lethal contents of 80 percent of the reactor core rather than the 3 percent figure announced to the world and that as a result a great wave of morbidity swept through the Soviet Union due to weakened immune response, accelerating its sudden collapse after 1986.

Chernousenko, now dying of radiation poisoning, along with thousands of young conscripts involved in the emergency clean-up, was dismissed from his post at the Ukrainian Academy of Science for revealing details considered "treasonable". His treatment is reminiscent of that accorded to Andrei Sakharov, who as revealed in Chapters 14 and 15 of his *Memoirs* (A. Knopf, 1991) was also punished for revealing the harm to immune systems of ingesting food or water containing man-made fission products.

Chernousenko has been continuing working on his revelations of the worldwide dangers from the poorly designed East European reactors at the OKO Institute in Freiburg, Germany, under the sponsorship of Petra Kelly. But with her untimely death his contract has been terminated due to pro-nuclear pressures.

Surely the plight of this heroic scientist deserves discussion in the pages of *Science*, in the interests of protecting human rights, the independence of science and the fight against the radioactive pollution of the planet.

[REDACTED]
Radiation and Public Health Project, Sponsored by the
Commission For Racial Justice of the United Church of Christ, [REDACTED]
New York, N.Y. 10024

Memo from [REDACTED]

Re Material from Chernousenko

July 29, 1993

I enclose copies of some of the materials sent to me by V. Chernousenko, as follows:

1. His letter to me, in broken English, with his description of its contents.
- 2 I have selected first his six page summary of the speech he made at the Mexican environmental conference in Sept.1991, where he first met Peter Matthiesson, who wrote a moving op-ed piece on it for the NY Times (Oct.19,1991) and where he first met Petra Kelly. This speech I am told reduced the audience to tears and moved Petra to get him a research post at the OKO Institute in Freiburg, for he had been exiled from Russia and the Ukraine, and was literally a man without a country. This speech is a far better summary of his work than my Nation article of Mar.15,1993.
3. As an example of the sensitive nature of the material sent to me, I enclose the first page of his official report to Gorbachov on the true radioactivity measures around the reactor, which are so high that the report has still not been made public after seven years.
4. Now read his very moving statement on the death of Petra Kelly and Gert Bastian describing his close collaboration with them over the past two years. They were doing in Europe what Ralph Nader is trying to do here: making an evaluation of the relative dangers presented by each civilian reactor, except that in Europe they were getting death threats, which have frightened off many of the German Greens.
5. The official report of the Bonn police of the apparent suicide-murder was that Bastian left no message, and that in the two week period after the deaths there were no record of either incoming or outgoing fax messages. That this is a lie is apparent from the copy of a fax message to Petra from Hans Klein of MIT dated Oct.9, about one week after they died, apologizing for his inability to raise funds for a joint visit that Petra was trying to arrange with Chernousenko. On Oct.28, Klein sent a copy of this fax to Chernousenko.
6. You have to see the English video tape to realize why the nuclear establishment will move heaven and earth to stop his work.

The following was written as an op-ed piece for the New York Times, at the urging of John B. Oakes, but which has todate not been printed.

In the Aftermath of Chernobyl

According to the July 23, 1993 issue of *Science*, Russia is experiencing a huge surge of infectious diseases, with a doubling of mortality rates in 1993 over 1992 for measles, diphtheria, syphilis, typhoid along with rapid rises in mortality for malaria, influenza etc., all attributed by the Russian State Committee on Sanitary and Epidemiologic Surveillance to poor nutrition. But it underlines the warnings of epidemics to come from impaired immune response made by Dr. Vladimir Chernousenko, the Ukrainian physicist chosen to supervise the Chernobyl cleanup. Chernousenko, now dying of radiation poisoning, along with thousands of young conscripts involved in the emergency clean-up, was dismissed from his post at the Ukrainian Academy of Science for revealing details of the accident considered treasonable.

His treatment is reminiscent of that accorded to Andrei Sakharov, who as revealed in Chapters 14 and 15 of his *Memoirs* (A. Knopf, 1991) was also punished for revealing the harm to the immune systems of those ingesting food or water containing man-made fission products.

My first knowledge of Chernousenko came from a moving New York Times op-ed piece by Peter Matthiessen (Oct. 19, 1991), who met him at a radiation conference in Mexico that year. The late anti-nuclear Green Party activist Petra Kelly was also at that conference. She too was moved by his account of the true dimensions of the accident, which he said released 80 percent of the core contents rather than the officially announced figure of 3 percent, and made 100,000 square km of the most productive land in Belarus and the Ukraine permanently uninhabitable. Because of the reluctance of the Soviet authorities to acknowledge the magnitude of the radioactivity released, equivalent to 1000 Hiroshima bombs, Dr. Zhores Medvedev, the dissident Russian biologist now residing in London, has estimated that food contaminated by Chernobyl has been eaten by 90 million persons.

For publishing such details, Chernousenko was driven into exile, so Petra Kelly secured a research post for him at the OKO Institute in Freiburg, Germany to enable him to complete his revelations of the dangers posed by the poorly designed East European reactors still in operation. But with her untimely death and the loss of her support, opposition to his work there has mounted to the point that he is seeking refuge here. He has been dismissed from his post at the OKO Institute before completing his work and is the recipient of repeated death threats, as was

Petra Kelly too.

I was moved by the Matthiessen article to secure a copy of Chernousenko's heartbreaking book called **Chernobyl: Insight from the Inside** (Springer Verlag, Berlin 1991), and reviewed it in the March 15, 1993 issue of the **Nation**. Since then I have been in correspondence with him and he has asked me to to publicize his plight.

I would hope that efforts can be made to bring him to a research institute here so that his unique knowledge can be shared as quickly as possible. Surely this heroic scientist, a latter day Sakharov, deserves the support of all those concerned with the protection of human rights, the independence of science, the fight against the radioactive pollution of the planet and the resurgence of fascism in Europe.

Jay M. Gould
Director, Radiation and Public Health Project, sponsored by the
Commission for Racial Justice of the United Church of Christ

Vladimir Chernousenko---A Latter-day Sakharov

By [REDACTED]

A heartbreaking report on the hidden dimensions of the 1986 Chernobyl disaster, written by the Ukrainian nuclear physicist Vladimir Chernousenko, chosen to "liquidate the consequences" of the accident was published in Germany in 1991, entitled *Chernobyl: Insight from the Inside* (Springer Verlag, New York). The book may never be published in Russian, because Chernousenko, now ill with radiation poisoning along with thousands of others conscripted for the emergency clean-up, was dismissed from his post for telling the truth about the accident's catastrophic effect in accelerating the rapid dissolution of the former Soviet Union after the accident.

He reported that the accident released the lethal contents of 80 percent of the reactor core rather than the 3 percent figure announced to the world. He estimated the radioactivity to be equivalent to the explosion of 1000 Hiroshima bombs, resulting in a great wave of morbidity beginning soon after the accident because of the widespread shipment of radioactive food from more than 100,000 square kilometers of contaminated land in Belarus and the Ukraine. I have summarized his horrifying findings in the March 15 issue of *the Nation* (Chernobyl--The Hidden Tragedy), where I likened his fate to that of Andrei Sakharov, who was also punished for revealing the truth about the lethal effects on the immune system of ingesting radioactive food or water.

Unable to continue his embarrassing disclosures at home, Chernousenko was invited to resume his work at the OKO Institute in Freiburg, Germany by Petra Kelly, who made an impassioned plea on his behalf at a radiation conference in Berlin a week before her untimely death under rather mysterious circumstances. With the removal of his strongest supporter in Germany, Chernousenko is now being dismissed from his post because of mounting opposition to his forthcoming revelations about the increasing dangers of reactor accidents in Eastern Europe, and is now the recipient of death threats, as was Petra Kelly. He has made a public statement that because he has earned the right to tell the truth he will never commit suicide should he be found shot in the manner of Petra Kelly and her companion Gert Bastian.

This heroic scientist deserves the support of all those concerned with the protection of human rights, the independence of science, the fight against the radioactive pollution of the planet and the resurgence of fascism in Europe.

My dearest friends.

Those great martyrs for our planet, two people whose courage and greatness of spirit knew no bounds, Petra K. Kelly and Gert Bastian, are dead!

Weep, my fellow humans! For they were murdered!

I do not for one moment believe the suicide version. They had no reason to kill themselves. I, who was in almost constant contact with them over the last year, can testify to this.

Were there any reasons to murder them? Indeed there were. Petra and Gert understood that. They often told me of the death threats they were always receiving.

The last time I saw them, at the "World Uranium Hearing" in Salzburg on 17 September, they told me about their creative plans for the coming years and again expressed their fear that they would not be given an opportunity to realize these plans.

Their almost 24-hour-a-day work on films about nuclear Mafia and the critical ecological state of the earth, on articles and books on fascism and the arrogance of neo-fascism in Germany, accelerated the pace of events. They forced their murderers hand.

And now these murderers have robbed us all of the chance of communicating with these pure blameless and holy children of our universe.

The world should demand an independent inquiry into this abomination. We should keep the memory of Petra K. Kelly and Gert Bastian alive by establishing an international prize, to be awarded to those who endeavor to protect our planet and our civilizations and to preserve them for future generations, even at the expense of their own lives.

And one more point, I am now continuing with my book "Nobody wanted to die" on the crimes of the international nuclear Mafia, the tragedy of Chernobyl and the ecology of the planet. I would like to dedicate this work to Petra and Gert.

But, the international nuclear Mafia is already publishing a series of newspaper reports in an attempt to discredit me, to drive me to despair and madness. In my home country they are considering taking away my citizenship.

These are the first steps. I am as good as convinced that the next murder will soon follow. And again they will call it suicide.

In order to forestall what may yet come I would like to state quite categorically that I will never shoot myself. I promised this to Petra and Gert.

I intend to work and try to establish an independent international institute for ecology, I shall continue to write articles and books until I draw my last breath.

Yours,

Vladimir Chernousenko
21 October 1992

D = 13 + 14

From Dr. Vladimira Chernousenko

New York, N.Y. 10024
U S A

GERMANY

Fax

22.06.1993

Dear Dr.

On the last time the international atomic mafia and some scientistes as well too, was confided the incorrectness informations which MAGATE had preparationed for their in the press-realis, have published in USA, Great Britain, Germany, Sweden, Mexico and in my country some the counterferfeited materiales about the causes, the scales and the consequences of the disaster at the Chernobyl. Nucler power Station.

Continue to sound the irresponsible declarationes : 1) about the necessity is subsequent building up and keeping of the nuclear weapons. 2) about the safety means is developing the atomic energy.

This, for my opinion, is absolutely not possiblily, dangerously and criminally.

It is impossible to silence and to be enactive !

The World is on the threshold of the next translimited catastrophie on the some from the atomic objects in the different countries of the world. The future catastrophe can become the end of all our civilization.

The wich is reported to you as much as possible the trustworthy informations, there is force me to prepare and send for you the next enumeration of the materials :

1. The maps of the radio-active situation in the "special -10 km zone". The maps was taken from our secret report, have being written by order the Governmental Committee N°158 from 12 September 1986 year. In 31 Desember 1986 y. the Report was finishing and sending to the adress of Gorbachov, Ryshcov and members of the Government.

Unfortunately, this report and maps have still not been released to the public althoufh seven years have passed since it was written.. The radio-active fields with the levels of activety from 10.000 to 15.000 thousand Roentgen an our show with the "asterisks". In this radio-active fields worked tens of thousands of soldiers and of reservers without any safeguard. Even for not professionals can understand that's why are ailing and are dead the people have taken part in liquidation of disaster in the 10-km "special zone".

2. The lectures and the speeches.

3. The articles. In the interview for the correspondents of next magazines I have tried to give honest answeres on the raising questions.

4. The books. I'll adducing the enumerations of the books which have been succeeded and was published. The enumerations of the books which are being finished and the table of contents which over I would like to work in the near time.

5. The enumerations of the materials, which I have prepared for the joint project with Öecological-Institut in Darmschadt. My contract with this institut will be finish at the middle of July 1993 y. and prepared the five thousand pages to me hardly will be publish in Germany.

6. The materials wich have prepared Petra Kelly and Gert Bastian in the supporting of my work in Germany.

7. The copy of my recommendation to Petre Kelly in order to receive the premium of Academician Saharova.

8. The copy of my Fax , which I have sent in October, 21, 1992y. at the many countries of the World, when had knew about the die my bester friends Petry Kelly and Gerta Bastiana. I am convince absolutely that it was the premeditated murder. Thus dealt earlier, dealing now and will be deal with us in future ,if we will be keeping silence or to struggle alone for future our civilization.

9. Videocassette. In it have the films, which have been prepared with the televisions of my country, Great Britain, Germany (with P. Kelly), France, USA.

10. The correspondence of P. Kelly`s and G. Bastian`s. In it are going speak about our plans by the joint journey on USA with lectures.

11. The explanatory letter. In it I am trying acquaint You with the facts of the understanding all the sending materials more in detail. Sorry, in view of the lack of the time , it,s writting on russish.

I hope, that the sending materials will help You understand the true picture of the tragically öecological situation in the World.

As before I,m redy to make aseries of lectures, to meet with the concerned persons, the different funds, kommittees, organizations, which can they further :

1. The preparation and the publication of the medical informations about the influence of the receive dose radio-active on the health the people were victims, on the flora and fauna so.

2. The p̄paration of the acticles, books, lectures, films at those the survive direct members the liquidation one of the most terrible for all the history of the humanity the disaster should warning the people from the nuclear folly.

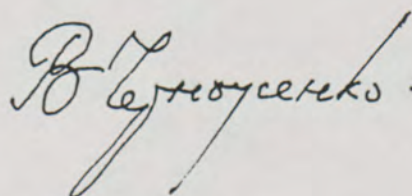
3. Of render help to the people, which victimed from the translimited disasters in the different country of the World.

4. Of render help to my friends, which worked in the 10-km "special zone" in 1986 y. with me.

5. Of set up the International Independent Institut of the öecology and the International magazine "Öekology of the Planet".

With the respect,

Dr. Vladimir Chernousenko



AFTERWORD

Vladimir Chernushenko

Taken from his speech to the Morelia Symposium, Mexico, September 1991

The disaster which took place at the Chernobyl atomic power station on 26 April 1986, given its scale and the extent of the damage it inflicted, can be numbered among the most massive technological accidents that have ever happened during the development of human civilization on this planet. It was an ecological catastrophe not merely of national, but of international proportions and it has brought grievous suffering to the peoples of Byelorussia, the Ukraine and the Russian Federation. The fact that I have lived through the events in question gives me the right to speak dispassionately and honestly about one of the most tragic pages in the history of mankind.

My name is Vladimir Mikhailovich Chernushenko. I am fifty years old and married. I have two daughters – one is twenty-four years old and the other seventeen. I have never belonged to any political party.

By profession I am a theoretical physicist in the field of nuclear physics. I am a research fellow of the Institute of Theoretical Physics of the Ukrainian Academy of Sciences in Kiev and a Doctor of Physical-Mathematical Sciences. I am also Vice-President of the International Working Group *Non-Linear World* which brings together scientists from more than thirty-five countries. I have been working on fundamental problems of theoretical physics and mathematics for over twenty-five years and I am the author of 120 scientific articles and 8 books on thermonuclear, oceanic, atmospheric, astrophysical and space studies as well as solid state physics. For seven years I have studied ecology and catastrophic phenomena in nature.

My involvement in the Chernobyl emergency operation began with the explosion in reactor no. 4 on 26 April 1986. At the very beginning I worked in Kiev, but by the end of May 1986 I was at Chernobyl organizing the Ukrainian Academy of Sciences emergency headquarters there. In June 1986, I became Scientific Supervisor of the team which was entrusted with the clean-up operation in the 10-kilometre special zone around the wrecked reactor. The operation was called the *Liquidation of the Consequences of the Accident at the Chernobyl Nuclear Power Station*. I took part in practically all the work which was done in the zone in 1986 and, as a result, I received a fairly large dose of radiation. It was not a fatal dose – but it was big enough unfortunately, to make it necessary for me to go into hospital for treatment two or three times a year.

I am a member of the Ukrainian Academy of Sciences Commission on the Chernobyl clean-up operation. I was one of the three people responsible for the secret report on the emergency operation which was sent to the Soviet Government. Unfortunately, this report has still not been released to the public although five years have passed since it was written. I have made several tours of the stricken areas of the Ukraine, Byelorussia and the Russian Federation and I have first-hand knowledge of the radiation situation in nuclear power stations in France, Germany and England. In 1987, I was among those who created the USSR's new Rapid Reaction Team which is now ready to tackle large-scale industrial accidents and natural disasters and I have acted as a scientific consultant in the making of practically all the films ever made about Chernobyl in the USSR.

By the fifth anniversary of the tragedy hundreds of books and thousands of articles had been written about Chernobyl. Of these, some were written by people with no expert knowledge and are primarily emotional in character. Each of these seeks to throw light on one aspect or another of the disaster, usually concentrating on the first days or weeks. The second category consists of works written by experts who have never been near Chernobyl, or who, perhaps, may have

dropped in for a moment or two but only after 1987 and with the express purpose of having their photograph taken with the Sarcophagus in the background. This picture would then be inserted into the book to emphasize the author's personal involvement in the events described therein.

I have brought all this to your attention so as to leave you in no doubt about the knowledge and experience I have accumulated over a long period of direct involvement in the Chernobyl Liquidation operation. The facts which I present to you are beyond dispute, the data reliable. I shall try to present them in a way which is both professional and accessible to all.

Although almost six years have passed since the Chernobyl disaster a large number of experts working in the nuclear industry are still troubled by unanswered questions. Objective information about what really happened on the night of 25 April 1986 is still difficult to obtain. What is known about the pre-accident processes in the reactor? What assessment can be made of all the scientific, technical and organizational causes and of the circumstances leading up to the accident?

The infringements of safety rules and the mistakes for which the operating staff were responsible on that night could and should have led to an emergency shut-down of the reactor. In fact the operators' last actions were an attempt to trip the reactor. However, owing to peculiarities in its design, it was exactly these first actions which led to a catastrophic surge of power, to the explosion of the reactor, to the destruction of the reactor block and to the ejection of a vast quantity of radioactive material into the environment.

The world is now no longer agog at the achievements of science and technology but aghast at the tragedies which have accrued at atomic power stations over the last decades. We have only to look at one of the years since the Chernobyl disaster – 1989. In the course of that year in the 16 atomic power stations for which figures are available there were 118 breakdowns of various kinds. Moreover, of these 54 breakdowns were the result of human error and 64 were due to equipment failure. Can we be sure then that there will never be another Chernobyl? Let us remember the conditions which led to this transnational nuclear catastrophe. They were: a) a power monopoly b) secrecy and c) disregard for safety rules at the design stage when a conscious decision was made to increase economy of operation at the expense of safety.

Independent experts have estimated that the emission of radioactive substances represented not less than 80 per cent of the 192 tonne charge of the reactor core – in terms of radioactivity that is 6.4×10^9 Curies. If we divide that quantity by the number of people living on the earth we arrive at a figure of more than 1 Curie per inhabitant of the planet. The amount of radioactive material actually emitted in the Chernobyl disaster is between sixteen and twenty-seven times greater than the amount predicted for a "Maximum Hypothetical Accident" in which fuel rods would melt and localisation systems would fail. The prediction was that in such a "Maximum Hypothetical Accident" 3 to 5 per cent of the reactor's charge would be ejected.

The removal of all radioactive substances from the soil and subsoil of the whole contaminated area is not a practical proposition. Neither is there any ground for optimism concerning a rapid natural decay of these substances. The danger index of the ejected substances declines only a factor of five over the first 100 years – i.e. from 5×10^{12} to 1×10^{12} . Over the first 1,000 years it will decline a further one thousand times – to 1×10^2 . Take the total outflow of all the world's rivers: $36,380 \text{ km}^3$ per year. It would take fifty years of outflow from all the world's rivers to dilute the emissions from the wreck of Reactor No. 4 to a safe concentration.

Disasters such as that at Chernobyl result in grievous harm to the population, in self-inflicted loss of territory in peacetime (with no enemy to fight or blame), in multi-billion material losses. We

cannot justify risking such catastrophes. Whatever our need for electricity they are absolutely unacceptable.

The catastrophe disrupted normal life and work in a number of regions of the Ukraine, Byelorussia and the Russian Federation; 144,000 hectares of agricultural land were taken out of cultivation. The work of many factories and farms was halted. In monetary terms, initial losses amounted to 900 million roubles. Loss of agricultural production and losses in other industries where production was interrupted is estimated at 1,200 million roubles for the period 1986 to 1989. One hundred and sixteen thousand people were evacuated from the danger zone. The total sum spent on emergency rectification work in 1986 to 1989 was, together with the cost of the damage done, 9.2 billion roubles. The sum spent by the Ministry of Defence on emergency work following the accident – mainly on decontamination of installations and settlements – totalled, in 1986 to 1989, 577 million roubles. The Council of Ministers of the Republics has presented emergency aid programmes for rectification work in Russia, the Ukraine, and Byelorussia during 1990 to 1995 to the State Council of Ministers. The total planned expenditure is 33 billion roubles. These programmes include details of measures to be taken and work to be completed in the period to 1993. Expenditure during this period will be 16 billion roubles. Taking into account the specific details of the republic's programmes and the need to avoid duplication of efforts, a programme of rectification works to be carried out in the Chernobyl restricted zone during 1991 to 1995 has been prepared at the government's request by the Ministry of Atomic Energy. These measures will cost in the region of 2.4 billion roubles.

The programmes prepared by the Byelorussian and Ukrainian republics envisaged the gradual transfer of all inhabitants now living in areas where the level of caesium 137 contamination exceeds 10 to 15 Ci/km². In Byelorussia this stage of the transfer will affect 96,731 people living in 353 towns and villages. In the Ukraine 29,731 people will be moved from 67 settlements.

There has been no consideration of the fact that people who have taken part in the emergency rectification work will suffer serious consequences. This has hardly been mentioned. It is sufficient just to examine our newspapers. Where will you find in print the number of people who died after Chernobyl? you might find the figure of thirty people. That is all. The thirty-first will not be there. But I could give a different figure. Between five and seven thousand Chernobyl people have died so far. They were scattered all over the USSR. We cannot count them accurately. But on the basis of the evidence supplied periodically by our organization the figure can be estimated. And what about that other big lie, which seems to have the backing of the Ministry of Health itself, the lie that comes with the stamp: "Not radiation-related". How many people are there, seriously ill as a result of the accident, who cannot get this dirty, inhuman stamp removed?

When I tried to ask at our local surgery what the people who were at Chernobyl are dying of, the response was: "What do you mean? It is nothing to do with Chernobyl. They are dying from other causes. Some have heart attacks. Some committed suicide." But why? We brought people to this, after all. What if a lad of twenty-five or thirty becomes a complete invalid on a beggarly pension, 70 to 100 roubles per month? And if he has a family, what is he to do? There is only one thing – to hang or drown himself.

Towards the end of May 1986, the level of radioactivity in the special zone had been measured and the work of dropping sand, solomite and lead into the ruin of Block 4 (which apparently caused lead poisoning in thousands of people) was largely completed, and it became clear that there was no uncontrollable chain reaction taking place in the reactor. At that time, construction of the

Sarcophagus was first discussed at meetings of the government commission. Block 4 was the main source of radiation pollution. In the time between the start of the initial work and its completion on 30 November 1986, eighteen different designs for optimum containment were proposed. They called for phenomenal quantities of concrete and metal. Of course, these projects also required a fair amount of time. In view of the high radiation it was not possible for humans to approach the site, all work had to be done remotely. Shutting down the remaining three blocks for two or even three years was not even considered. It was made clear that the containment needed to be installed immediately.

Work was conducted under extreme radioactive conditions. Whenever possible, remote control equipment or helicopters were used. When necessary, work was also done by hand, by people who worked selflessly around the clock. Only with the help of video cameras, binoculars, and observation from helicopters could the state and stability of the reactor's remains be evaluated. In view of the properties of the soil and the difficulty in assessing the stability of the walls of the ruin, it was decided that the Sarcophagus should be as light as possible. It is hard to imagine the difficulty of the task facing the construction workers who needed to get the pieces of the scaffolding into place, to within 15 to 20 cm, without really being able to see what they were doing. Work came to a halt, however, in September 1986; Japanese, German, and Soviet robots – none of them were designed to endure such super-high radiation fields. The solution was simple: allow a one-time dose of 20 rem per person and send soldiers onto the roof. Biorobots. On 19 September 1986 people were sent into the jaws of hell.

We estimate that today there are at least 50,000 invalids who took part in the emergency work. Our people in Moscow tried to work it out – they thought that the number was nearer to 100,000. I think the figure of 50,000 is closer to the truth at the moment. This is about 10 per cent of the total number of people who passed through Chernobyl during the emergency operations.

During 1986 to 1987 the press called these people who took part in the Chernobyl clean-up "heroes". They numbered more than 650,000. Now they are called "liquidators" or "rectifiers" and have been forgotten. Their time spent in the zone, working in super-high fields without protective gear and medical attention did not leave them unscathed. They began to fall sick, become invalids, many retired from life. In a last effort to call attention to the neglect of their social needs, some of these already afflicted people went on hunger strikes and founded the "Chernobyl Union". Children from the Pripyat and from thousands of villages and settlements of Byelorussia, the Ukraine and the Russian Republic, went to school on 26 April, as well as the following days and then later took part in the May Day celebrations. They played outside. They were outside when Block 4 was spewing millions of Curies of radiation into the atmosphere.

The developing picture of the extent of the radiation contamination defies indifference. The first measurement devices became available and people started to learn that they are living in an area with more than 40 Ci/km². They learned that they are producing foodstuffs containing contamination levels that are beyond exceptional dose limits. That could only be compared to those of wartime, as reflected by the officially set "Temporary Permissible Levels". These regulations governed the allowed concentrations of radionuclides in foods etc. In some cases, 30 to 90 per cent of the tested milk samples, as well as meat, feed, and other agricultural products, were higher than these norms. Although privately owned livestock had been confiscated, animals remained on the collective farms. In the strict control zone, "clean" products were supposed to be brought in, since the home-grown produce was inedible. However, these foodstuffs were either supplied in insufficient quantities, or not at all. The 30 rouble subsidy per person per month for purchasing clean produce did not placate the public; it was nicknamed the "coffin subsidy".

Consumption of contaminated locally grown foodstuffs continued to increase the radiation ingested by the people.

Today, at last, it is clear to everyone that practically the whole population of the republic is being subjected to internal irradiation by the food it consumes. In 1986 it was said that 30 per cent of the population of Byelorussia had been subjected to irradiation, but now the figure is practically 100 per cent. You only have to look at the post-mortem investigations carried out by our own Byelorussian scientists. They have shown that even the citizens of Vitebsk province, which is supposed to be absolutely clean, have strontium and plutonium in their bodies. The only way that these radionuclides could have penetrated there was by being eaten. For over four years the regulations "Temporary Permissible Levels" were in force in the republic. The last time these rules were revised was in December 1987. They should have been reviewed in April 1990 but, because the scientists could not agree about how much strontium to allow into food these regulations have never been tightened up. We are now into the fifth year since the disaster and our children are still drinking milk passed as fit according to the regulations authorized by the State Medical Officer of Health. That is, they drink milk which is four orders of magnitude (ten thousand times) more contaminated than the milk we drank in 1985. Our root vegetables are one thousand times more contaminated, and so on.

Objective indicators of the consequences of living in a contaminated territory and of eating "dirty", i.e., contaminated food have appeared. People have started not just to feel unwell, but often to become seriously ill. The effects of living in contaminated areas are particularly obvious in children. Chronic nose and throat diseases and diseases of the gastrointestinal tract and of the liver and spleen have risen dramatically. The incidence of cataracts has increased. Birth defects have become more frequent. Enlarged thyroids among children are not uncommon. Among adults there is increased incidence of cardiovascular complaints; swellings, diseases of cerebral blood vessels, gastrointestinal tract (gastritis, chronic cholecystitis, cholangitis).

The increasing incidence of birth defects and deformations in animals panicked the residents in the affected areas of the Ukraine and Byelorussia. I recall the anguish I felt at the birth of an eight-legged foal, which we filmed in May 1989, near Narodichi in the Zhitomir Province. The most common birth defects in animals are the absence of one or more extremities, deformation of the skull or spine, absence of eyes, overgrowth of the eyelids, lack of hair, exposed internal organs, or the absence of an anus. The visits of various commissions have not yet resulted in any final conclusion or evaluation of these animal deformities. The question remains, "what will happen tomorrow?"

For the generations to come, we can be sure that the probability of genetic consequences will grow by geometrical progression, and we are now faced by a great number of medical problems. Firstly, the question of the effect of small doses on the human organism, something that is still not fully understood. Secondly, the combined effect of the radiation and of the heavy metals which were deposited over huge areas of our republic when all kinds of different materials, primarily lead, were dropped into the burning reactor. As a result, we are now grappling with lead-induced anaemia in Krasnopol and Alavgorod regions in Mogilev province. Nor is it any better in Gomel province. Several regions of Brest province and also the Khoyniki region of Gomel province have been affected by boron, which causes hair loss, and lead, which can cause hypertension. In Gomel and Mogilev provinces especially, there have been rises in the incidence of goitres and toxicosis.

In 1990, a team was sent from our Institute to the Strelchevsky village soviet in Khoyniky Region, Gomel province. They studied the local people and found that every fourth person was suffering from "vegetovascular dystonia". And these were quite young people. The team noticed a rise in

the number of cases of high blood pressure. It was found in 12.5 per cent of those examined. It should be noted, too, that the cases of high blood pressure were all serious, leading to a considerable number of cases with persistent high blood pressure and strokes. The ischemic heart disease cases were also serious. Life in the contaminated territories is full of such psychological, social and moral stresses and strains which create such instability that nervous systems and hearts cannot cope with them.

We have seen that the Chernobyl accident is unique in several aspects in terms of geographic scale and degree of contamination. But without a doubt the most important problem is the well-being and monitoring of the health of the inhabitants of the huge polluted regions: the investigation of the influence of small doses of 0.3 to 0.5 rem per year, the dosimetry of radionuclides, and the development of methods of treatment.

The ecological situation in a significant part of the Dniepr river basin also remains alarming. The area of the basin spans 509,000 square kilometres, extending across the territories of Byelorussia, the Russian Republic, and the Ukraine, and it contains 44 km³ tons of water. It supplies water to 50 large towns and industrial centres, about 10,000 industrial enterprises and to 53 large irrigation systems which cover an area of 1.2 million hectare. Forty million people drink from the water in the Dniepr, and a total of 10.5 km³ of effluent water is poured back into the river each year. Ignoring radiation, the pollutants discharged into the Dniepr in 1988 included 53,000 tons of organic origin, 64,800 tons of various substances in suspension, 334,000 tons of sulphates, 336,600 tons of chlorides, 3,750 tons of phosphates, 15,100 tons of nitrates and 67 tons of phenols. In addition to continuous chemical pollution, the river is now polluted with radioactive substances. As a result of the Chernobyl catastrophe, there were, according to official statements, 50 million Curies of radioactive material deposited into the environment. According to unofficial estimates the number is 6,500 million Curies.

In view of all the events since 1986, it is interesting to follow the evolution of radiation safety standards in the former USSR. Analysis of all the relevant documents and directives which have been published in the last thirty years, and especially those of the post-Chernobyl era, show that there are still no scientifically-grounded measures to protect the population from radiation exposure. Taking into account the increased number of reactor accidents, particularly in this post-Chernobyl period, the absence of well-founded safety standards can lead to, and is leading to, irreparable damage to health of present and future generations.

I believe that the main moral lesson of Chernobyl is that we can save ourselves only if we talk and work together. We see all around us the increasingly tragic ecological consequences of technological disasters which do not recognize political frontiers. They are pushing the whole of mankind towards destruction. It seems to me that the time has come for urgent action. We must put aside all the trivial and temporary things that divide us and focus on the eternal things which unite us.



CENTER FOR TECHNOLOG

...ICY AND INDUSTRIAL DEVELOPMENT

CAMBRIDGE, MASSACHUSETTS 02139

Hans K. Klein
E40-242
Cambridge, MA 02139

28 October 1992

Dr. Vladimir Chernousenko
Schwalbenweg, 9
D-6588 Birkenfeld/Nahe
Germany
Tel and Fax: (011-49) 6782/6589

Dear Dr. Chernousenko:

I received your fax a few days ago. I, too, was shocked and dismayed by the death of Petra Kelly and Gert Bastian. I am sorry that such remarkable people should die and that you have lost good friends.

I am sending you a copy of a fax that I sent to Petra Kelly earlier concerning my administrative problems with your talk at MIT. As you can see, we do not have enough funds to pay for your visit. If it were combined with another trip to the U.S., we could probably contribute part of the funding. In any case, we can do nothing before 1993.

Please let me know if you can combine a visit to MIT with another trip to the U.S. I will keep you informed of developments here. Again, I share your sorrow.

Sincerely,

Hans K. Klein

Hans K. Klein



CENTER FOR TECHNOLOGY, POLICY AND INDUSTRIAL DEVELOPMENT

CAMBRIDGE, MASSACHUSETTS 02139

MIT Building E40-242
Cambridge, Massachusetts 02139
U.S.A.

9 October 1992

Federal Republic of Germany
Facsimile:

Dear Ms.

Unfortunately, I have been unable to locate funding for a trip by you or Dr. Chernousenko to MIT in early November. There simply has not been enough time. Therefore, it will not be possible for MIT to sponsor a trip to the U.S. in the immediate future. I am disappointed, as I am sure you are as well.

Let me note two positive aspects of the situation, however. First, there has been discussion of the creation of a Speaker Series in technology policy that would sponsor visits by distinguished practitioners like you and Dr. Chernousenko. Perhaps as early as this spring this series would exist. Second, if you are ever travelling to the U.S. on other business, you would be welcome to speak at MIT. The barriers to a November visit are strictly financial, so that if your travel costs were covered elsewhere you could certainly come here.

Please contact me if you anticipate a visit to the U.S. any time soon. I will likewise contact you if any new developments take place. I am sorry that this has not worked out.

Sincerely,

Hans K. Klein
Research Staff

The 'Madman' of Chernobyl

in: NY Times — 14 Oct. 91

By Peter Matthiessen

SAGAPONACK, L.I. One morning in September in Morelia, Mexico, while swimming in a hotel pool, I observed a gaunt man in a dark suit whom I recognized as a fellow participant in an environmental conference sponsored by Mexico's Group of 100. This conclave of scientists, environmentalists and writers from 20 countries, called the Morelia Symposium, was seeking to avert global catastrophe.

Dr. Vladimir Chernousenko stood alone on a terrace smoking a cigarette, and was still smoking when my wife and I joined him for breakfast.

According to his translator, John Hine, Dr. Chernousenko, who seemed content with cigarettes and coffee, ate little and paid small attention to his health, since he is not expected to live more than two more years. Yet in public his words and manner are unfailingly so spirited and cheerful that by the time he had finished his presentation, he was the hero of the conference.

Dr. Chernousenko, a 50-year-old nuclear physicist, was the scientific supervisor of the emergency team sent into Chernobyl in the Ukraine a few days after a meltdown in nuclear reactor No. 4 caused a fatal explosion on April 26, 1986. Dr. Chernousenko arrived there five days later. He was also director of the Scientific Exclusion Zone, the so-called Dead Zone, which extends in all directions for about 19 miles from the black hulk of No. 4, known as "the sarcophagus." Before his arrival, the other reactors had been shut down and the zone's villages belatedly evacuated.

Dr. Chernousenko's orders were to "liquidate the consequences" of the accident — he enunciates this bureaucratic euphemism with irony and despair, since the consequences will remain unliquidated for millennia — and to reactivate the other reactors as soon as possible, at any cost.

In an earlier accident at Chernobyl in 1982, Dr. Chernousenko informed the delegates, the wind carried radioactive particles eastward toward Siberia, where the fallout passed almost undetected except by the unfortunates in its path. But in 1986, the winds were blowing westward and the radioactivity was detected by scientists in Sweden 10 days later.

In 1986, the radiation from the ruined reactor represented 80 percent of its full charge of uranium, not the 3 percent the Government reported; even today, the region remains a hundred times more contaminated than is thought safe for humans.

From the start, it was known that the amount of energy produced by the restarted reactors would be insignificant, that there was no valid reason to send people back into Chernobyl and every reason to evacuate the region. Mr. Chernousenko and his team personally warned Mikhail Gorbachev that a cleanup would drastically increase the human damage.

Even so, the Government decided that the cleanup should not await the arrival of modern technology and machines but should start at once with manpower and shovels. At the conference, Dr. Chernousenko called this decision "a criminal and needless sacrifice of human life."

Local coal miners, the first to volunteer, collapsed from radiation poisoning within an hour. The officials then turned to untrained and unprotected army reservists and conscripts, some of whom, says Dr. Chernousenko, fainted upon realizing what was being asked of them. Even when suits that protected against radiation arrived from the U.S., they proved all but useless. No one was permitted to remain more than one minute on the roof, from which graphite debris was shoveled down into "the sarcophagus" before it was sealed. Dr. Chernousenko presented a terrifying documentary film that showed bulky figures running out on the roof. There

was only time for two small, frantic scoops with narrow, old-fashioned shovels before they fled — "10th-century technology being used to fight 20th-century catastrophe," Dr. Chernousenko says.

Clutching official certificates of honor, these young men were immediately removed from the Dead Zone. Even so, without exception those sent out on the roof are dead. Dr. Chernousenko says that all of his 100-odd associates and friends at Chernobyl are already gone.

The official figure of 31 mortalities represents those who died in the original explosion. The actual toll of those who perished as a result of the "cleanup" is 5,000 to 7,000, and many thousands more throughout southern Russia will die of radiation poisoning or related cancers, especially in Byelorussia, which received even more fallout than the Ukraine.

Dr. Chernousenko, fatally afflicted with radiation poisoning, believes that at least 35 million people have been damaged. Eight million to 10 million still live in heavily contaminated regions, including a number who have returned to their villages, convinced by propaganda that Chernobyl has been modified and is now safe.

**'We are faced
with an
apocalypse.'**

"We are faced with an apocalypse," Dr. Chernousenko said in an intense, quiet voice of warning. "This is an international disaster." Yet, he says, the international nuclear agencies discount many serious accidents with vague phrases, unchecked data and false conclusions — sometimes pure myth — to assuage the public's increasing uneasiness about the safety and practicality of nuclear power.

Last Friday's serious fire in reactor No. 2 — and a top Ukrainian official's demand that the power station be shut — underscore that uneasiness.

Dr. Chernousenko believes the Chernobyl catastrophe eliminated the last hope of practical use of nuclear power, which he considers the most dangerous threat faced by the world environment. It is impossible, he says, to build a "safe" reactor, and even if one managed such a feat — and even if man could devise safe ways to deal with the lethal waste that has been accumulating since the first atomic tests — the technology would be too expensive. Despite all the propaganda to the contrary, nuclear energy cannot compete economically with other energies in the open market.

Five years after the explosion, the Government has yet to release his dire report on the emergency operation at Chernobyl. Dr. Chernousenko is devoting the remainder of his life to presenting his evidence because, he said, "events that cause so many human deaths should not be hidden."

In 1990, Dr. Chernousenko left the Soviet Union for France for medical treatment, then went to Germany and is now in Britain. In April 1991, while writing a book about Chernobyl, he was dismissed from the Institute for Theoretical Physics in Kiev, since his opinions are very unwelcome to his Government. Nuclear authorities, he says, try to dismiss him as a madman, "but like most madmen, I don't quite agree."

At the conference in Mexico, all who listened to this man, so eloquent and quiet in his presentation, came away disturbed and stirred, not only by his devastating talk and film but also by the exhilarating spectacle of a brave man set free by his own passionate commitment to the truth, even while penniless and dying.

In the recently issued Morelia Declaration, the conference participants, proposing creation of an International Court of the Environment, urged the leaders who will attend the Earth Summit in June 1992 to commit themselves to ending ecocide. □

Peter Matthiessen is a writer and environmentalist.

Congratulations Mr. President And...

Next Steps To Halting Nuclear Proliferation

by Alice Slater

After thousands of Americans wrote, petitioned, and contacted their legislators, President Clinton announced his decision to extend the current nuclear testing moratorium—only until September 1994—and only if no other country tests. We have a breather.

It may be a short-lived moratorium. Clinton's Department of Energy has awarded \$400.4 million in 1993 to fund the nuclear addicts at Los Alamos and Livermore for their "business as usual" research, development and testing of new, improved nukes in the laboratory.

We can't rest on our laurels. All of us need to support the following steps:

1. CALL for the appointment of a negotiator to begin immediate talks for achieving a Comprehensive Test Ban Treaty.
2. CALL for the U.S. to join a United Nations conference to amend the Limited Test Ban Treaty to a Comprehensive Test Ban Treaty.
3. CALL for an immediate halt in funds for nuclear weapons research, development and laboratory testing.
4. CALL for a worldwide ban on the production of plutonium and highly-enriched uranium and an international inspection program for all countries, including our own.
5. CALL for more drastic cuts in the U.S. stockpile of 20,000 warheads.

There is evidence of underground water contamination in Nevada—we have been poisoning our own well! Testing must never begin again in America.



Vladimir Chernousenko

Scientist Exposes Cover Up

The recent surge of infectious disease reported in Russia is supported by the warnings made by Vladimir Chernousenko, the Ukrainian physicist chosen to supervise the "clean up" of Chernobyl. He asserts that the accident released the lethal contents of 80% of the reactor core, rather than the three percent figure announced to the world; predicting a great wave of illness through the former Soviet Union due to weakened immune response.

Chernousenko, 52, is now dying of radiation poisoning, along with thousands of young conscripts involved in the emergency clean-up. He was dismissed from his post at the Ukrainian Academy of Science in Kiev for revealing details considered "treasonable." He continued his work, on the worldwide dangers from poorly-designed East European reactors, at the OKO Institute in Freiburg, Germany, under the sponsorship of the late Petra Kelly. But with her death his contract was terminated; and he has expressed concern about his own safety.

The following speech was delivered by Chernousenko recently in Salzburg and makes his main points about both Chernobyl and nuclear power. His at times awkward expression is retained for the authenticity of his remarks.—Ed.

by Vladimir Chernousenko

I would like to give you a short account of our sad, I would go so far as to say, tragic experience in dealing with one of the most terrible catastrophes that has ever afflicted us...the year 1986, Chernobyl. Later on, I would like to say a few words about existing problems and the dangers connected with the further development of such dangerous products, in particular, atomic power stations, atomic blocks, and then...I will speak about the problems and tasks which, in my opinion, we, together, using our combined strength, have to solve in the near future...

It is possible to relate many tragic moments which highlighted the catastrophe. Well, the first and the most important thing which can be quoted here is, of course, the regime of secrecy which was accepted in our country from the very first second the catastrophe happened.

People living in territories far away from Chernobyl found themselves in the radioactively contaminated zone—they did not even know for some years in which regions they lived, why their children were ill, which doses of radiation they had been exposed to. And this was perhaps the most tragic moment and the period, I would say, of our fight for some clarity, openness, for at least some honest scientific data which might be useful to scientists, for the analysis in the future of all these consequences of contamination from radiation for—I underline—millions of people.

What dimensions did this catastrophe take on? They just terrified us. According to our calculations, more than 35 million people on the territory of my country received this or another dosage of radiation. By "this or another dosage" I mean, for example, more than 15 million people got an over-dose from hundreds till some 3,500 to 4,000 times on their thyroid glands. It is clear that this will not go away without consequences for the children's health who received this dosage.

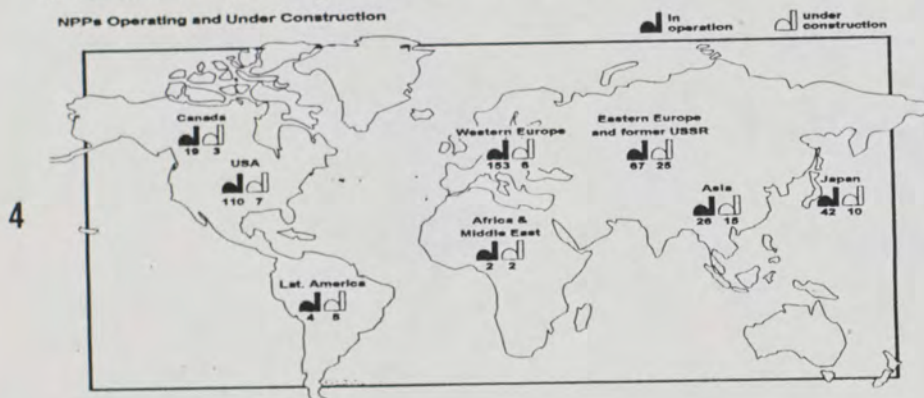
It is clear that already in the near future, genetic changes in the health of children will follow, of those who live in these contaminated territories. And we have already analysis of blood carried out by independent doctors which testify

that these changes have already begun to take place. And this is the most terrible consequence of such catastrophes.

Besides that the Ukraine is contaminated, White Russia is contaminated, Russia is also contaminated. The radiation situation, which we carried out in the protocol—regretfully they have not been published yet—it is obvious that the traces of radioactive cloud went from Chernobyl to the Ural, practically to Novosibirsk.

The thing is that we faced an astonishing interrelationship which, at first glance, cannot be understood by the human beings brain. For example: you all know that there is an International Agency of Atomic Energy in Vienna which is headed by (Hans) Blix. But how astonishing that this international agency could speak the same language as our former communist government!

NPPs Operating and Under Construction



...Hans Blix saw that the radio nuclides were being thrown out from the (fourth) block and were being spread over the whole territory of the earth and, at the same time, he made calming statements: "Just be quiet, everything is all right, everything is under control, there is no cause to worry." This put us on our guard.

After that, such an extreme lie already followed when our government, under pressure from its own atomic Mafia...this Ministry of the Medium Machine Building prepared a completely falsified protocol about the catastrophe that had happened; it claimed that only unpredictable situations had led to such a catastrophe.

And what astonished us after that—the IAEA was only too keen to believe every word and began to convince the whole world. It is not a normal situation when the people who are in charge of the fate of a whole civilization lie

quite openly to the whole world...

And from that moment on—it was approximately one year after the catastrophe of Chernobyl—we began to call the whole organization a good united international atomic Mafia which we all have to fight, of course, because they can very quickly and easily murder us.

When we were beginning our work in Chernobyl, we estimated very quickly what would have happened to the world and to Europe if the other three RBMK blocks in Chernobyl had exploded. The estimate showed that the earth would have been burned from Chernobyl to the English Channel.

Well, you can imagine the scale of an unpredictable, unexpected catastrophe which can happen at any moment if we, together with you, still do not put barriers in front of the international atomic Mafia, for the further develop-

ment of such sharp and dangerous products. This is first.

Also, inside this industry itself, there are many completely inevitable contradictions. I am speaking about the final storage of the radioactive waste and about the 1,000-year-long observation of them and about the impossibility of creating absolute safe products... It really terrified us, and now we have to speak and to talk and to explain clearly, exactly, in simple language, to millions of people this degree of danger with which we live.

And finally, what should one do in this situation? It is necessary, in our opinions, in my opinion, to establish an independent international institute of ecology in the shortest period of time. It is necessary to call in the best scientists, so that they can give an independent expert estimate, honest, tragic, but cor-

the atomic Mafia does it, maintaining that by developing atomic production we move our civilization ahead, but not saying that doing so, we push it to the brink of destruction.

China's Nuclear Dump in Tibet

by Matthew Price

China's invasion and occupation of Tibet has resulted in more than the destruction of an ancient civilization and the enslavement of its people. For most of that time China has been using Tibet as a secret nuclear research site, releasing unknown amounts of nuclear radiation and dumping unknown amounts of nuclear waste in Tibetan waterways.

Recent reports have warned that China may be planning to use Tibet as a waste depository for nuclear materials from China, North Korea and other nations. Ironically such wastes could pollute Tibetan rivers that flow into China itself, exposing millions of both Tibetans and Chinese to radiation poisoning.

Despite consistent admonishment from the international community, the Chinese still stubbornly refuse to withdraw from Tibet. Chinese immigration continues apace. There are an estimated 7.5 million Chinese settlers, as opposed to six million Tibetans. An even greater threat to the Tibetan people is China's

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