

# INFORMING THE PUBLIC ABOUT NUCLEAR IN SLOVENIA

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## ABSTRACT

Slovenia has experienced a dynamic history of nuclear public acceptance. In the previous social system there was no free press and therefore there was simply no opportunity for the anti nuclear movement. During the transition into the democratic society nuclear energy was used as one of the major platform for several political parties and public opinion about that type of energy production was at its low. After several years of fruitless anti-campaigns the general public seems to realize how unjustified is the fear and gives much less attention to this issue. In the mean time we, nuclear professionals, are working on the long-term public information.

## SLOVENIA AND ITS NUCLEAR PROGRAM

Slovenia is a Central European country of only 20,000 km<sup>2</sup> and about 2,000,000 inhabitants. Till 1991 it was part of former Yugoslavia. At that time socialist systems were collapsing throughout the Central and Eastern Europe. In addition to the transition to the market economy system we also gained independence and our own country. Our current nuclear program is inherited from the previous country. We have one nuclear power plant operating at our territory. It is Westinghouse built 632 MWe two loop PWR. The construction started in mid seventies and the power plant was connected to the grid in 1981. It is a joint venture between Slovenia and Croatia, which were both republics, states, in the former Yugoslavia and are independent countries today. The energy production of the Krško NPP is split 50:50 between electrical utilities of both countries. Electricity from Krško represents almost 40 % of all electricity produced in Slovenia.

There was also a uranium mine operating in Slovenia until 1992, but it is now closed because of economical reasons. We have one TRIGA Mark II research reactor in our capitol Ljubljana, some nuclear research, very little nuclear related industry and some applications of radioactive substances in medicine and industry. Radioactive waste from the NPP is stored on site, while the waste from all the other producers is stored in special temporary storage close to Ljubljana. The site for the final repository for low and intermediate radioactive waste is not selected yet because of unfavorable public opinion.

Following is the brief history of public relations to nuclear energy in our country. It has to some extent similar pattern as in other nuclear countries, while we have also our peculiarities related to the change of our political system. We have grown from the society of limited freedom of speech to fully democratic environment. Public opinion about nuclear energy has grown along from almost complete negligence through turbulent period of mistrust to current quite favorable attitude of acceptance because there is no better and cheaper option.

## BRIEF HISTORY OF NUCLEAR PUBLIC ACCEPTANCE IN SLOVENIA

### *In Former Yugoslavia*

In former Yugoslavia, where the Krško nuclear power plant was constructed as a joint venture of the Slovenia and Croatia republics, the problem of public acceptance of nuclear power virtually did not exist. Freedom of speech was practically not existing, and all the decisions were made at the top of the only ruling

party. Since nuclear energy issues did not exist in public media, the public was not much concerned with them. For example, the poll from early 1986, before the Chernobyl accident, showed that 80.2 % of population did not consider the Krško NPP to be a major problem, 15% were against its operation, and 4.8% did not have any opinion (Slovensko javno mnenje 1986). The similar poll in 1987 has shown a considerable influence of the Chernobyl accident: 53.7% people considered the Krško NPP not to be problematic, 42.3% were against, and only 4% did not care (Slovensko javno mnenje 1987).

With the emerging democratization Krško NPP became the focal issue for several new political options in late eighties. One of the first signs of emerging opposition was the conference "Ecology, Energy, Energy Saving". Number of eminent professionals from the energy field and future *green* politicians openly expressed themselves against this kind of energy production. They were successful enough that in 1987 Yugoslav and Slovenian Parliaments accepted the moratorium on further expansion of nuclear power.

The new Green Party became very strong about two years before the independence of Slovenia. Green politicians have based their political success on the program of immediate closure of the Krško NPP. The presence of anti-nuclear issues in the media was very high, while nobody has defended it. The results could be seen from the public opinion poll in 1990, when only 46.9 % of people did not consider the Krško NPP as a problem, 50.4 % were against it, and 2.7 % were undecided (Slovensko javno mnenje 1990).

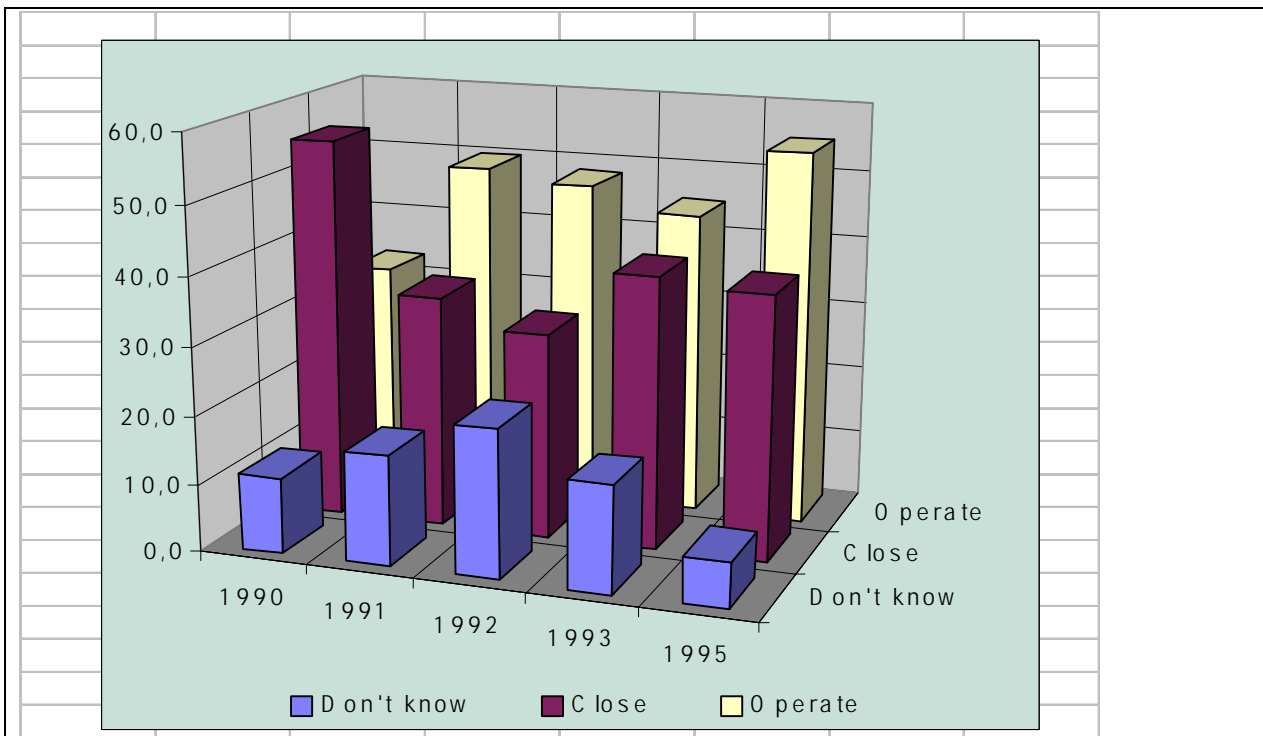
### ***From the First Democratic Government to the Year 1995***

At the first democratic elections in 1990 the Green Party won 12% of votes. The first DEMOS government (DEMOS was the alliance of non-communist parties before the first democratic elections in Slovenia) even had a minister for energy from that party. One of their loudest immediate promises was the shutdown of the Krško NPP, which has been planned for the year 1995. The Ministry for Energy has ordered a study, which was supposed to become the professional background for the premature shutdown (Izvedljivost zapiranja NE Krško, 1993). Although the results were not at all supporting the shutdown, they have been interpreted also in different ways and have contributed to the controversy.

The activity of the first democratic government culminated with the proposal for the national referendum about the future of Krško NPP. The proposal was sent into the parliamentary procedure in January 1992. But it has never come to the Parliament agenda, because it was rejected already at the level of Parliamentary Committee for Economic Development and the Committee for Environmental Protection. The year 1992 represented also the end of the first government, after which the majority of nuclear opponents became the opposition.

The new government was never openly against nuclear power, although it has never publicly supported it either. Following the bad elections results in 1992, the Green Party split in 1993 because of internal disputes. The leading Liberal Democratic Party (LDS) in 1994 adopted one part of the split Green Party, which formed the so-called Ecological Forum of LDS. Thus some elements of the termination of nuclear program have been brought into the program of the largest Slovenian party.

The period from 1993 to autumn 1995 resulted in relative weak anti-nuclear activities in Slovenia. This resulted in an improved public image of the nuclear energy. It can be seen from Figure 1 that the percentage of people supporting the continued operation of Krško NPP rose from the lowest point in 1993 (44.6 %) to 54.8 % in 1995.



**Figure 1: Public opinion about further operation of Krško NPP in Slovenia**

### ***Request for a Referendum in Autumn 1995***

In October 1995 the most active anti-nuclear member of the Parliament managed to collect 37 signatures of his fellow parliamentarians from different parties supporting the request for the national referendum about the shutdown of the Krško NPP in next ten years. Under the Slovenian legislation such a request is mandatory for the Parliament if it is signed by more than 30 members of total 90 parliamentarians. Therefore in thirty days the Parliament was obliged to set the date for the referendum and start the preparation activities.

This request was a surprise for most of nuclear professionals and also for general public. The media were suddenly full of news about the Krško NPP. In the beginning most of published information were negative, prepared by the nuclear opponents. From the media it could be understood that this action of Parliament members surprised also the leaderships of major political parties.

Once again the nuclear opponents started their campaign using the stories about the danger of nuclear energy, its high costs, low costs of replacement thermal energy and the terrible heritage our generation will leave to our grandchildren. They disqualified the competent institutions in advance by doubts in their objectiveness. By them, the operators of the Krško NPP should not make any public statement, because their task was supposed to be only the production of the electricity and not the long-term energy supply of Slovenia. On the other hand the Slovenian Nuclear Safety Authority should not say anything in favor of nuclear power, since it was supposed to take care only about the nuclear safety. The State Secretary for Energy should also not be in favor of nuclear, since he has to treat all the energy sources equally.

The opponents neglected or very easily bypassed any role of Croatia as co-owner of the plant. They claimed that in the case of the success of the referendum Croatia would have to abandon the plant without any right for compensation, since that would be proclaimed as the shutdown from safety reasons. According to the original agreement between Croatia and Slovenia that is the only reason because of which Slovenia could shut down the plant without the prior agreement from Croatian side. Soon after such

statement was made Croatia made clear, that it currently did not recognize any safety reason for closure and would not consider the possible positive outcome of the referendum as such.

Few days after the announcement of the request for the referendum the Nuclear Society of Slovenia prepared the briefing sheet with the summary of its views to nuclear energy and premature shutdown of the Krško NPP. It was made public on the press conference on November 8, 1995, which was very well accepted by the media. The entire major newspapers and broadcasting corporations have published its statements. Special attention was given to the information about the costs of such undertaking.

The opponents were surprised by the appearance of the Nuclear Society, which was before little known in public. They could not disqualify it like other government institutions and had to enter into the public debate. Their often irrational claims were losing ground confronted with the factual data offered by the professionals.

After approximately three weeks, only few days before the period of 30 days ran out, nine signers of the referendum request withdrew their signatures after the strong pressure from their party leaderships. With less than 30 signatures left the request became void and the Parliament did not have to take it into consideration.

### ***Activities in Spring, 1996***

In the beginning of March 1996 a new action of nuclear opponents was announced. They have collected 200 signatures of citizens under the request to the Parliament to allow the collection of another 40,000 signatures of Slovenian voters asking for national referendum. This procedure was actually started on March 17. The organizers had to collect these signatures in the period of two months.

The opponents based their campaign on the tenth anniversary of the Chernobyl accident and on the support from foreign and international organizations. Already in January they started a series of semi-public round tables, to which also nuclear professionals were invited. These activities culminated with the strongly publicized public round table on April 9, 1996, in convention Centre Cankarjev dom.

A strong support from Greenpeace and Austrian organization Global 2000 was present. The Greenpeace information bus was touring Slovenia, press conferences were held regularly, printed material was distributed, Internet was used. The organizers even promised a reward to those signing the referendum request.

Nuclear and energy professionals repeated their stands from last fall. In number of public statements and in debates on radio and TV our view of nuclear energy became quite well known.

The action of opponents failed almost as a disaster. After two months they collected 2,463 signatures, which was only 6 % of the necessary 40,000.

Since May 1996 the loud opponents in Slovenia almost ceased to exist. Nuclear energy is not at all an issue in the public. In the mean time the *National strategy for the use of energy* has passed the parliamentary procedure, giving green light to the large modernization project in the power plant. Two new steam generators were ordered from the Siemens-Framatome consortium and are already under construction. They should be installed in the year 2000, the plant should be also uprated for about 6 % and the energy production is expected to rise for almost 25 % due to shorter outages. The plant should operate until the end of its planned lifetime in the year 2023.

### ***Lessons Learned from public debates in 1995/96***

Analyzing the dynamic history of public acceptance of nuclear energy in Slovenia one could conclude that general public in Slovenia has an attitude to nuclear energy, which is very similar to the attitudes in other

countries. Nuclear energy is not considered as other industries like chemical or air transport, where associated risks are usually forgotten and only the benefits are apprehended. Nuclear has a special status considered to be something extremely dangerous, mysterious, expensive, terribly Earth polluting, but also as something we should somehow try to live with at least until we do not accumulate enough funds to get a replacement. The fear from it is always present, although almost nobody really knows what to be afraid of.

It is paradoxical that after forty years of nuclear energy exploitation, when 15% of all electrical energy in the world is produced in NPPs, the public mistrust is almost completely blocking further development.

We, nuclear professionals, must have done something wrong? Limiting my analysis only to the situation in my country, I believe that one of the crucial mistakes we have made was the restriction of information. We have considered ourselves something special and usually did not want to discuss technical matters in public. In former Yugoslav system this was also maintained by a political structure, which has kept a control over important social issues for itself. Thus it was considered among nuclear professionals that public information is not something that should be done by us, but that somebody else has to do that and ask us only for help about technical matters. Since there was nobody else there, there was practically no public information. Such general ignorance and misunderstanding of strait technical matters represented the best environment for manipulations by opponents.

The new democratic social environment with the absolute freedom of speech was much better and much faster understood by nuclear opponents than by professionals. Today everybody can make any public statement. Much too often the important decisions in society are made primarily based on the impact in the media. The politician in power is first considering the public opinion mirrored in the media and only secondly the long-term technical expertise. In order to remain in power after next elections, which is his prime goal, he has to follow the short-term needs of voters. In the case of nuclear issues, the voters could be easily manipulated by the one sided reporting by active opponents, since technical professionals are much too often still reluctant to publicly express our views.

The opponents have also another advantage: they have no problems in publicly expressing untruth or false facts, while technical professionals are trained to always have factual background for our statements. For example, the green politician can easily say in public that there exist numerous studies confirming the impact of Krško NPP to human health. Although it is a fact that such studies do not exist, and although such a statement would be immediately replicated, the effect would be there: most of the people will consider Krško NPP as a permanent threat to their health.

## **PUBLIC INFORMATION ACTIVITIES**

Several nuclear institutions in Slovenia are offering some organized public information program.

### ***Nuclear power plant Krško***

NPP is open for organized visitors. They have a modest visitor center in the Krško town. Organized groups, mainly schools, can apply for the visit in advance. When they come, they are offered a short video presentation about the plant and a drive through the site. Some printed material is also distributed. They receive about 5000 - 6000 visitors per year.

### ***Agency for Radwaste management (ARAO)***

ARAO is responsible in the country for finding a site for the final radwaste repository and construction of the facility. Since several years ago they are investing a lot into the public information. They have produced six different leaflets for distribution among the people, translated several foreign videotapes, prepared a booklet about the waste, a booklet with most frequently asked questions and answers about the radwaste

and a special booklet for journalists. They have contributed to the permanent exhibition at the Nuclear training Centre with some panels, two mockups and a lecture.

### ***Nuclear Training Centre Milan Copic***

Nuclear Training Centre in Ljubljana is part of the research institute Jozef Stefan. Our main task is training of nuclear power plant operators. In addition we are also running an intensive public information program. We are concentrating to younger population, mainly to organized school groups. In last four school years we had about 25.000 visitors, mainly students of last two years of elementary schools and high schools with their teachers

To every visiting group we are offering the following:

- Lecture *How do we get Electricity from Nuclear Energy* (<http://cathy.ijs.si/~icjt/predavanje/jedrskae/index.html>)
- Lecture *Radioactivity and radioactive waste\**.
- Permanent exhibition *Electricity from nuclear energy*.
- Exhibition about the history of the use of radioactivity *Atoms through their time* (<http://www2.ijs.si/~icjt/Razstava/IndexA.html>)
- Visit to TRIGA reactor and radwaste storage (<http://www.ijs.si/ijs-dept-r3.html>).
- Leaflets about the nuclear energy around the World and about the operation of the nuclear power plant,
- Four different leaflets about the radioactive waste\*,
- Interactive panel with the map of the World and indicated locations of all power reactors (partly presented at <http://www2.ijs.si/~icjt/npps/npps.html>).
- A mock-up scaled 1:2 of the NPP Krško control room.
- A mock-up of surface and underground waste repository\*.
- World Wide Web site with increasing amount of information (<http://cathy.ijs.si/~icjt/index.html>).

(\*prepared together with Agency for Radwaste Management (Kukovica, 1995), <http://www.sigov.si/cgi-bin/spl/arao/sarao.html>).

### **CONCLUSION**

This brief summary of the history of public acceptance of nuclear power in Slovenia could give some idea about the importance of this subject for any nuclear country. The answer to the simple question – How to gain public acceptance of nuclear energy? – is far from being simple. We will certainly continue with our efforts for continuous and effective public information and education with young people as our main targets.

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