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## 6.4 Radiation Risks, Nuclear Power, and the Media

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In Western Europe as well as in some other highly industrialized parts of the world, most electronic and print media play a central role in creating an antinuclear public sentiment, largely without considering the actual technical and scientific facts. Even more than large-scale nuclear accidents, proliferation, and politically delayed waste disposal projects, fear-mongering about the risks of low-dose radiation exposures became a central acceptance issue. A typical example is the Chernobyl accident, for which German media regularly claim 10,000 to 100,000 radiation casualties, despite the well-established fact that their number is (and probably will remain, including the five child thyroid cases and long-term effects) below 40.

On media policies, the following opinions are generally acceptable:

- (1) "The newspaper's role as the public educator has been diminishing. Its role is coming more that of entertainer like television. Education belongs to the schools and colleges." (J. W. Anderson, former Editor of Washington Post (IAEA Bull. 46/1, 32, 2004))
- (2) "We are not a charitable trust. We print what people want to read and to buy." (H. Nannen, ex-Publisher of STERN Magazine (personal communication to the author))
- (3) "Journalists create public fears because of greed, lack of correct information, or ideological bias -- frequently in combination." ( Kramer and G. Mackenthun, "The Panic Makers", Piper 2003)

Main reasons for this situation (excepting relatively few serious journalists) are:

1. Widespread lack of relevant technical or scientific education among the responsible editors and journalists, forcing them, frequently under substantial time pressure, to accept unreliable information. Sensationalistic doomsday stories are more in demand and sell better than carefully researched, well-balanced reports.
2. Immediate comments and explanations, e.g. after a nuclear accident or incident, is much easier to obtain from self-appointed antinuclear activists with no reputation to lose, than from serious technical and scientific experts or organisations, who require more time to analyze the facts and consequences, and are used to more carefully worded and less spectacular statements.
3. Ideologically prejudiced green environmentalists from the 1968 student movement dominate many key positions in the media. They are inclined not to publish material which disagrees with their old paradigms.
4. In some countries, e.g. Germany, official governmental antinuclear policies suppress on various levels factual information about radiation risks and nuclear energy, and promote instead expensive "alternative and/or sustainable" energy sources.

5. Widespread “Political Correctness” among so-called progressive intellectuals supports everything that appears to be natural and small, and distrusts deeply large and complex technologies, because they are not instantly comprehensible to them as well as to other technically less educated people.

The opinions can be summarized as : “Infotainment”, just bridging gaps between commercial efforts, is unlikely to contribute much valuable public education. They say that media reports are often distorted, and the reasons for distorted media report may be concluded as due to the following two problems.

One is the problems with regulations. They are:

- (1) Interpretation of very low dose and activity limits as threshold of serious health hazard.
- (2) Estimates based on LNT and Collective Dose Hypothesis (multiplication of extremely low theoretical risks with high population numbers)
- (3) Ignorance of recent research and results by regulators, based on outdated international recommendations (ICRP, IAEA, EU, etc.)

The other is journalistic/editorial problems. They are:

- (4) Increasing commercial competition in TV and print media resulting in “infotainment” instead of seriously investigated information and education.
- (5) Lack of journalists with sufficient technical and scientific background.
- (6) Audience psychology: bad, frightening news get more attention, and are easier to sell than positive news.
- (7) Instant comments are easier to get from anti-nuclear activists than from serious experts.

It may not be easy to alter this situation. However, increasing energy costs and economic problems on many of the countries concerned may provide a change in public opinion sooner than most producers of published opinions would nowadays expect.

*Remark: This is a note for a presentation, and not a carefully polished scientific paper.*