
Security Culture in Germany

W.-D. Gutschmidt

Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) mbH

Abstract

The standing of the terms „security“ and „culture“ will be discussed. A brief overview about states and operators responsibilities linked to security culture will be given, and a definition of the term “security culture” will be explained. The security culture in German nuclear facilities will be briefly discussed.

1 INTRODUCTION

Security Culture is a term frequently used by security experts. The same holds true for safety culture as a key word by safety experts.

We all have a picture of the meaning of security, even though there is no precise definition. The same applies to the word “culture”. Of course, we all believe to know what culture means, it has been discussed for generations what culture actually stands for.

Can the joining together of two undefined terms bring about a clearly definable term?

In the following I will try to approach this term “security culture”. I am going to outline what component contributing to security culture. And I would like to propagate the development of security culture.

2 THE TERMS SECURITY AND CULTURE

According to a well known encyclopedia culture in its widest sense anything created by man, as apposed to anything given by nature.

In German we combine the word “culture” with many different kinds of words. Literally translated there is the word reading-culture; language-culture is another such term, frequently heard. Then there is also the term conflict-culture or political-culture. I have also heard the term building-culture being used, in reference to the futuristic new hotel in Dubai.

We all know, that language changes over time. The change from French-fries to liberty or frieden fries is not nearly a good example for such a development of change. Books written

50 or 100 years ago have a different language style than books coming out today. Also today's buildings look quite different from those built 50 or 100 years ago.

If language, literature and architecture change over time, then culture changes.

This means, culture is not static. On the contrary, culture is constantly subject to change. This is not new, but it is none the less important within the context of the understanding of security culture.

In contrast to the term culture, the term security is more easily clarified. The term security has only a few possibilities of interpretation. The term security covers everything necessary for the protection (not for the safety) of the population and the facilities against malevolent human arbitrariness.

In order to join security and culture together, I would like to speak about the physical protection of a nuclear facility.

3 SECURITY CULTURE IN A NUCLEAR FACILITY

I divide the physical protection of a nuclear facility into two responsibilities:

- The responsibility of the state
- The responsibility of the operator

The responsibility of the state covers an extensive picture with many elements. In this context I like to talk about a mosaic or a puzzle of different elements. By using this term I have in mind the large number of rules, regulations and guidelines, which the state has issued for the protection of nuclear facilities.

Here is a small selection:

- Design basic threat
- Atomic law
- Light water guideline
- Illumination guideline
- Guard-guidelines
- Guidelines on reliability
- Periodic examination of security systems
- Physical protection of Kat. III facilities
- Periodic check of the physical protection

I call this system of rules and regulation the “state security system” for the protection of nuclear facilities.

Of course there are requirements for the state system to meet:

- The definition of the DBT must be realistic
- It must be encompassing and complete
- The requirement of rules and regulations have to be able to be fulfilled
- It must leave room for development to be able to react to news aspects

This roughly covers the state security system for the protection of nuclear facilities.

Now let's look at the responsibilities of the operator.

They too consists of a picture, puzzle or a mosaic of different, single elements. These concern the concrete measures for the physical protection of a nuclear facility. These measures can be divide into personnel and technical measures

Here is a small selection:

- Detection system at the outer perimet
- TV-System
- Lightening system
- Entry control system
- Truck barrier
- Control system for relevant safety systems
- Measures against an insider
- Periodic teaching of the guards
- Exercises between guards and police
- Nomination of chef of physical protection

I deliberately use here the words “puzzle” or “mosaic”. A puzzle or a mosaic will not work if one element is missing, in other words the picture will not be complete. A physical protection system needs to be complete or else it will not function. This means on the other hand that single elements of the system (the mosaic) can influence / disturb the whole system.

I call the operator responsibilities “security management” of a nuclear facility. The security management of a nuclear facility is the direct application of the rules and regulations of the

state security system. In ideal case one mirrors the other: on the one side the rules and regulations, on the other side the measures.

This leads me to my understanding of security culture.

To my mind we can talk of security culture, if the state security system and the security management of the operator are in balance.

Here are two examples:

1. It makes no sense if the state defines a threat within the DBT, e.g. on attack with tons of explosives, if on the other side the security management is not able to realize adequate measures against such an attack. Requirement and measures are not in balance.
2. An operator offers sound technical reasons as to why a technical security system needs to be checked only on a half yearly basis and not on a monthly basis as required by the state. This is another case where required measures are not in balance. This can only be repaired if the state changes the rule.

This is my understanding of a "security culture": It is the balance between the state security system and the operator security management.

4 SECURITY CULTURE IN GERMANY

From the beginning of the peaceful use of nuclear energy, 35 years ago, the physical protection of nuclear facilities was a focus of attention. The state security system of physical protection has been a developmental process. This is documented by the large numbers of rules, guidelines and recommendations issued over the years. And the development continues to be an ongoing process. I mention in this context the changes that have taken place after Sept. 11 or the new aspects to protect computerized systems. Those responsible on the side of the state react quickly and consequently to new situations.

The operator on the other side needs to ensure and to prove, that his security management fulfils the requirements of the state security system. He does this regularly within the framework of the periodic analyses of his plant, or in the wake of special occurrences such as Sept. 11.

Should state requirements not be fulfilled, the operator has to modernize his facility. This has been done continuously in all German facilities.

For this reason we apply the term of a far reaching security culture in all German nuclear facilities.