

NUCLEAR LEGISLATION IN CZECH REPUBLIC

COVERED	COVERED PARTIALLY	UNCOVERED
Licensing process Nuclear safety Environmental Impact Technical safety Radiological protection	Radioactive waste Nuclear materials and selected items Emergency preparedness Authorization of Persons Fire protection Transport of Nuclear Materials Physical protection	General Requirements on Use of Nuclear Energy Liability / Nuclear Damages Funds for NPP Decommissioning and waste disposal Technical aspects of NPP Decommissioning and Spent Fuel Disposal



§ 15 Obligations of other organizations

- TO COMPLY WITH NUCLEAR SAFETY REQUIREMENTS
- TO PROVIDE NECESSARY DATA FOR RESPONSIBLE ORGANIZATION

§ 16 Emergency preparedness

REGULATORY AUTHORITY ~~DETERMINES~~ CONTENT OF ON-SITE AND OFF-SITE EMERGENCY PLANS

OPERATION OF NUCLEAR FACILITIES CANNOT BE APPROVED WITHOUT APPROVED EMERGENCY PLANS

§ 17, 18 Penalties

General provisions

§ 19 NO APPEAL AGAINST REGULATORY DECISIONS EXCEPT PENALTIES

§ 20 AUTHORITY OF OTHER REGULATORY BODIES IS NOT AFFECTED BY THIS ACT.

§ 21 AUTHORIZATION TO ISSUE SAFETY REGULATION

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COVERED

Licensing process

**Civil law and its pursuing
regulations No. 83 and No. 85**

Nuclear Safety

Law No. 28/1984

● **Siting**

Regulation CSAEC No. 4/1979

● **Design**

Regulation CSAEC No. 2/1978

● **Quality Assurance**

Regulation CSAEC No. 436/1990

● **Commissioning
and Operation**

Regulation CSAEC No.6/1980

● **Operating personnel**

Regulation CSAEC No. 191/1989

● **Research Reactors**

Regulation CSAEC No. 9/1985

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 - Design
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 - Research Reactors
- Law No. 28/1984
 - Regulation CSAEC No. 4/1979
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 - Regulation CSAEC No. 436/1990
 - Regulation CSAEC No.6/1980
 - Regulation CSAEC No. 191/1989
 - Regulation CSAEC No. 9/1985

COVERED (cont.)

Radiation Protection

- Regulation Min. of Health No 59/1972
- General Principles of the Law on Protection Against Ionizing Radiation

Environmental Impact

- Law No. 17/1992 on Environment
- Law No. 244/1992 Environmental Impact Assessment

Technical Safety

- Regulation COSW No. 76/1989 on Ensurance Safety of Technological Equipment in Nuclear Industry
- General Principles of the Law on the Surveillance over Safety at work

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COVERED (cont.)

Radiation Protection

- Regulation Min. of Health No 59/1972
- General Principles of the Law on Protection Against Ionizing Radiation

Environmental Impact

- Law No. 17/1992 on Environment
- Law No. 244/1992 Environmental Impact Assessment

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COVERED PARTIALLY

Radioactive Waste

- Regulation CSAEC No. 67/1987 on Ensurance of Nuclear Safety in Waste Management
- Law No. 238/1991 on Waste
- Integral Approach , the Role of the State, Financial Funds - Missing

Nuclear Materials and Selected Items

- Regulation CSAEC No. 28/1984 on Accountancy and Control of Nuclear Materials

Transport of Nuclear Materials

- IAEA Guide
- Integral Approach in the form of the Law covering selected Items - Missing

Liability /Nuclear Damages

- Vienna Convention

COVERED PARTIAL (cont.)

- | | |
|---------------------------------|---|
| Emergency Preparedness | <ul style="list-style-type: none"> • Regulation of Civil Defence -2-19/1989 • General Principles of the Law on Prevention and Mitigation of Industrial Accident <p style="margin-left: 40px;">Integral Approach - missing</p> |
| Authorization of Persons | <ul style="list-style-type: none"> • Concession Law No. 455/1991 (equipments with radiation sources) authorization of services affecting nuclear safety - missing |
| Fire Protection | <ul style="list-style-type: none"> • General Regulation for Fire Protection special regulation for NPP - missing |
| Physical Protection | <ul style="list-style-type: none"> • Regulation CSAEC No. 100/1982 <p style="margin-left: 40px;">Integral Approach specifying the Role of the State - missing</p> |

COVERED PARTIAL (cont.)

- | | |
|---------------------------------|---|
| Emergency Preparedness | <ul style="list-style-type: none">• Regulation of Civil Defence -2-19/1989• General Principles of the Law on Prevention and Mitigation of Industrial Accident <p>Integral Approach - missing</p> |
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UNCOVERED

**General Requirements on
Use of Nuclear Energy**

statement on exclusively peaceful use of
nuclear energy
the role of the state

Liability / Nuclear Damages

General Principles of the Law
- prepared

**Funds for Decommissioning
and Waste Disposal**

under preparation

**Technical Aspects of
Decommissioning and
Spent Fuel Disposal**

missing

POSITIVE AND NEGATIVE ASPECTS
OF CURRENT SITUATION

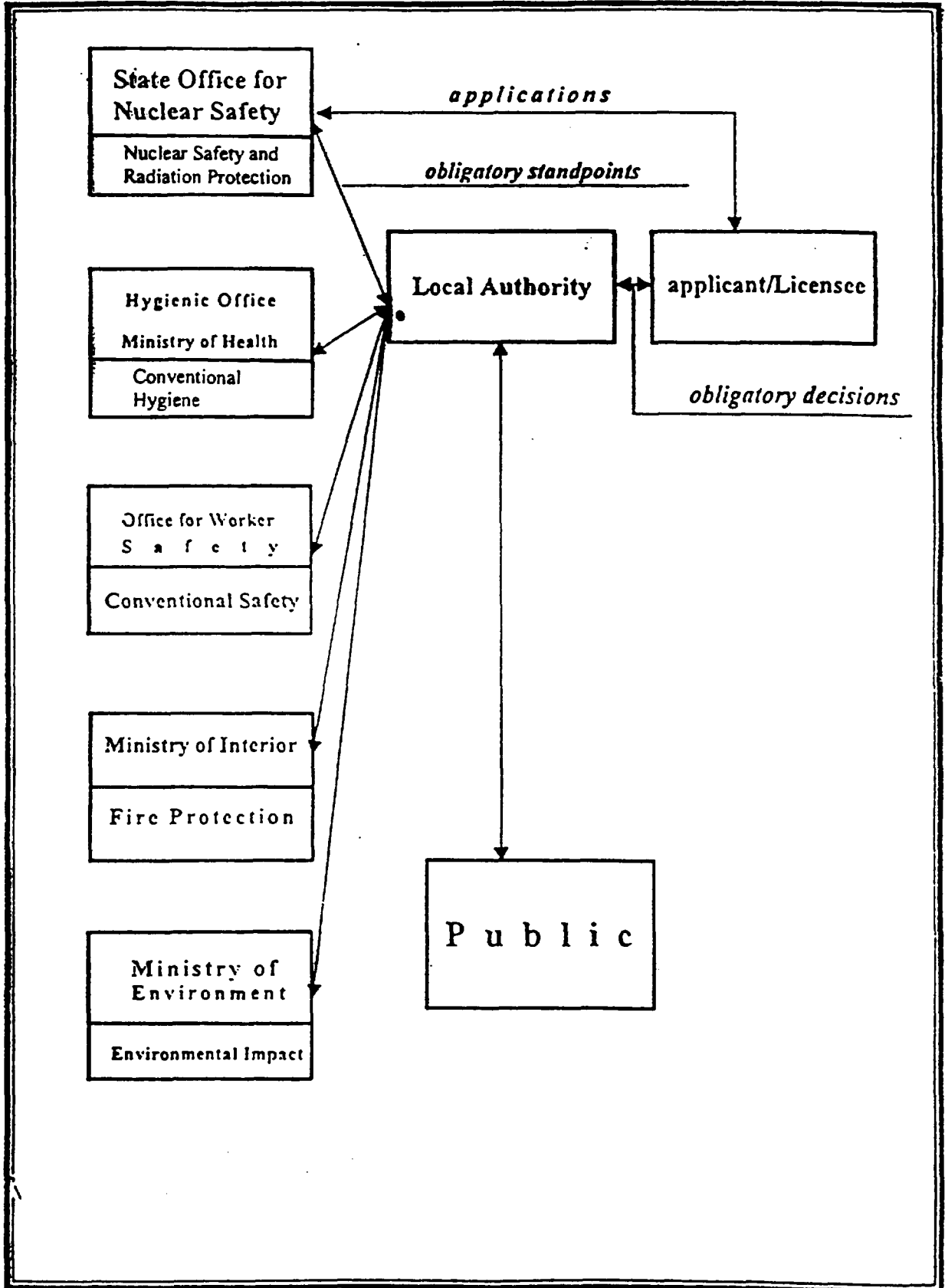
POSITIVE ASPECTS

- **Basic Areas Covered**
- **Rigid Legal Regime**
- **High jurisdictions of the State**
- **Validated by practise**
- **Compliance with international recommendations**

NEGATIVE ASPECTS (cont.)

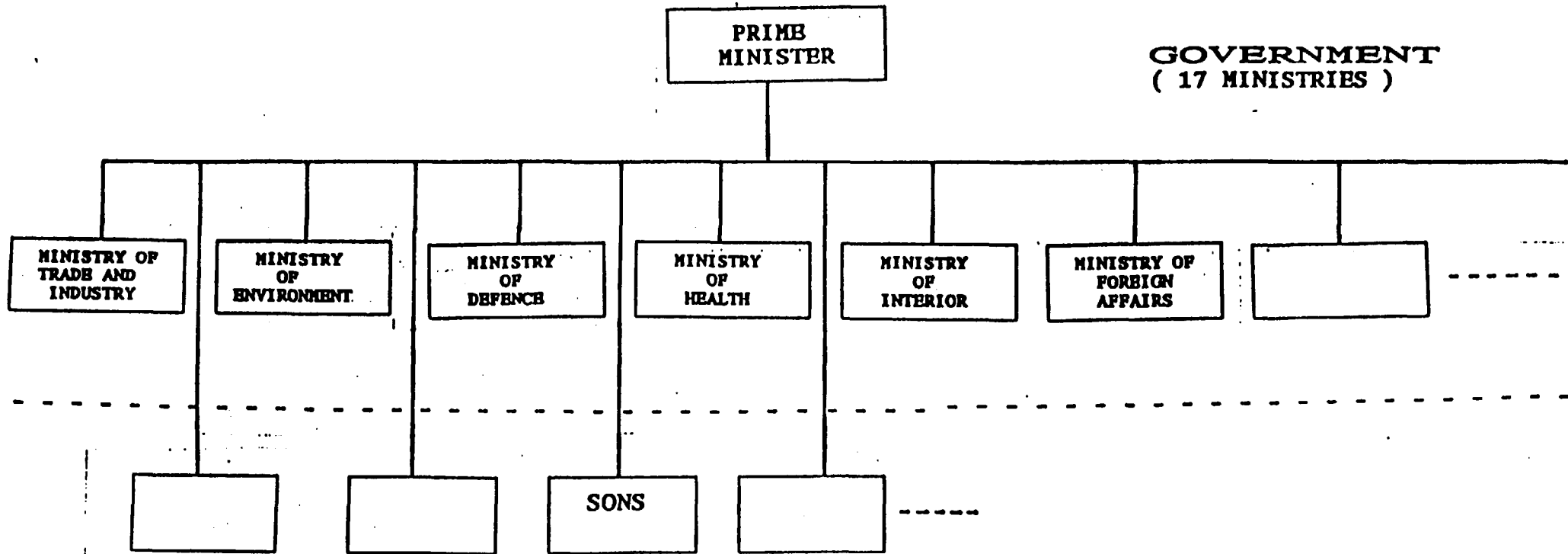
- **Large numbers of binding legal documents**
- **Complexity of relations**
- **Ununified terminology**
- **Uncompleteness**

Licensing Process

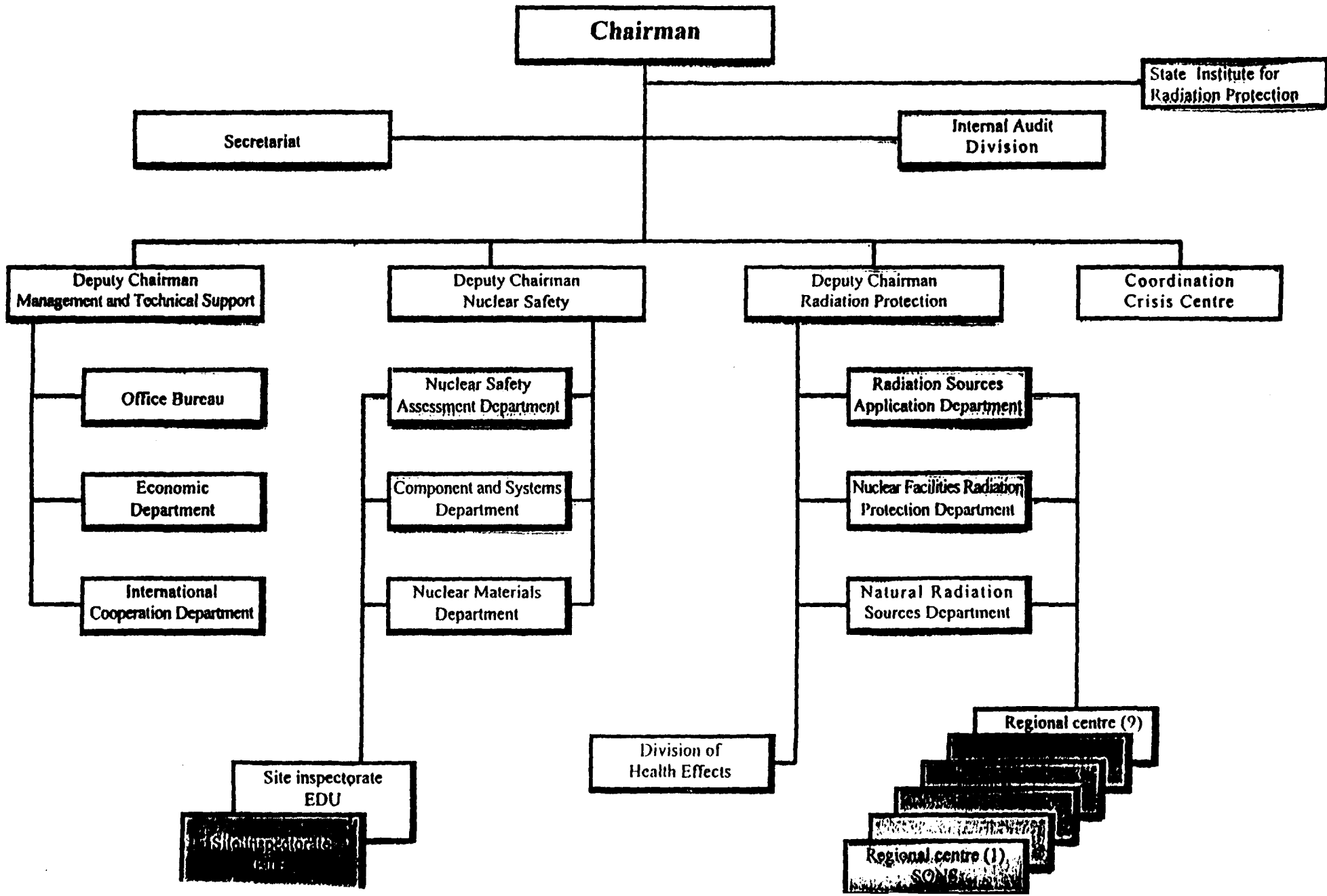


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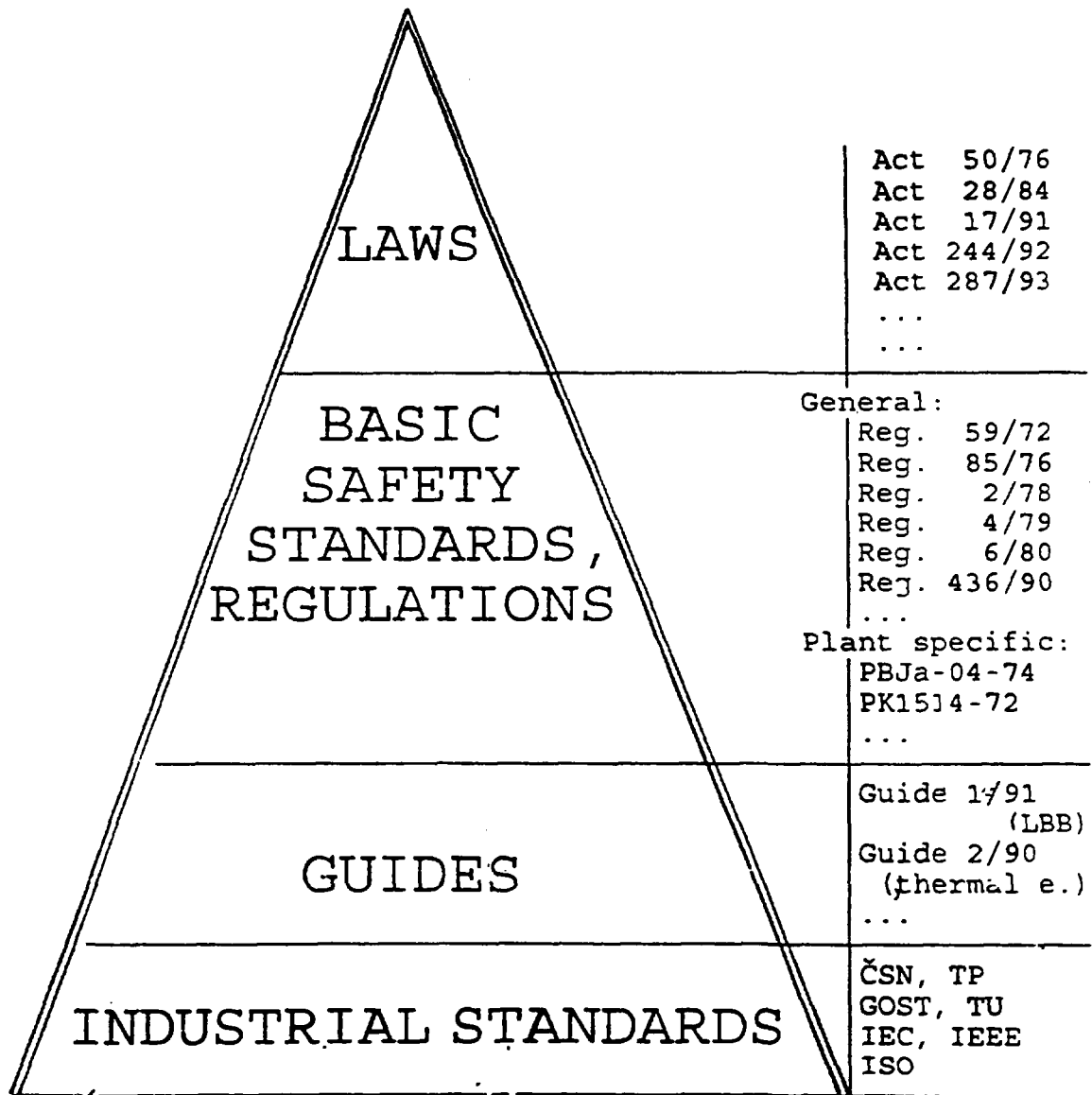
POSITION OF THE SONS IN THE GOVERNMENT STRUCTURE



**CENTRAL STATE
OFFICES
(8 OFFICES)**



3. "NUCLEAR" REGULATIONS & STANDARDS



LEGAL MILESTONES

- 1976 CIVIL CONSTRUCTION ACT AMENDMENT
- 1979 AUTHORISATION FOR INSPECTION IN
NUCLEAR POWER (DECREE)
- 1984 NUCLEAR SAFETY STATE SUPERVISION ACT
No 28
- 1987 EXTENSION OF STATE SUPERVISION
(DECREE)
- 1992 ACT No 21/92 ON CENTRAL BODIES OF THE
STATE ADMINISTRATION
- 1993 ACT (11.11.93) ON RESPONSIBILITIES OF
THE SONS

BASIC LICENCING STAGES FOR NPP ACCORDING TO THE ACT No 50/76

SITING STAGE

SITING SAR

CONSTRUCTION STAGE

PRELIMINARY SAR

**OPERATION STAGE
(COMMERCIAL)**

PRE - OPERATIONAL SAR

**INSTRUCTION ON CONTENT AND LAYOUT OF SAR
(CzAEC, 1977)**

BASIC LICENSING STAGES FOR NPP ACCORDING TO THE LAW No 28 / 1984

SITING

SITING SAR

CONSTRUCTION

PRELIMINARY SAR

OPERATION
(COMMERCIAL)

PRE-OPERATIONAL SAR

DECOMMISSIONING

DECOMMISSIONING SAR

INSTRUCTION ON CONTENT AND LAYOUT OF SAR
(CSAEC, 1977)

LICENCING STEPS DURING COMMISSIONING OF NPP

- FUEL LOADING**
- PHYSICAL START - UP**
- POWER START - UP (AT VARIOUS OUTPUT LEVELS)**
- TRIAL OPERATION (AT 100% RATED POWER)**

OTHER LICENCES ISSUED :

- DESIGN CHANGES**
- TRANSPORT OF NUCLEAR MATERIALS**
- STORAGE AND DISPOSAL OF NUCLEAR MATERIALS**

**THE COMPETENCE AND POWERS OF THE STATE
OFFICE FOR NUCLEAR SAFETY**

THE STATE OFFICE FOR NUCLEAR SAFETY (SUJB) WAS ESTABLISHED BY CZECH NATIONAL COUNCIL LAW No. 21/1992 OF 12TH DECEMBER 1992 AS A CENTRAL BODY OF STATE ADMINISTRATION OF THE CZECH REPUBLIC.

CONSTITUTIONAL LAW No. 4/1993 OF 15TH DECEMBER 1992 ON MEASURES CONNECTED WITH THE DISSOLUTION OF THE CZECH AND SLOVAK FEDERAL REPUBLIC TRANSFERRED TO THE SUJB THE SUPERVISORY FUNCTIONS OF THE FORMER CZECHOSLOVAK ATOMIC ENERGY COMMISSION (ČSKAE), STIPULATED BY LAW No. 28/1984 ON STATE SUPERVISION OVER NUCLEAR SAFETY IN NUCLEAR FACILITIES.

THE FIRST LAW DEFINING THE SUJB COMPETENCE WAS LAW No. 287/1993 ON SUJB COMPETENCE OF 11TH NOVEMBER 1993.

ON 19TH APRIL 1995 THE PARLIAMENT OF THE CZECH REPUBLIC PASSED LAW No. 85, WHICH AMENDED AND SUPPLEMENTED LAW No. 287/1993 ON SUJB COMPETENCE AND RELATING MEASURES. THE ESSENCE OF THE AMENDMENT WAS TO EXPAND SUJB COMPETENCE TO PROTECTION AGAINST RADIATION WHICH HAD BEEN UNTIL 1ST JULY 1995 IN THE COMPETENCE OF THE MINISTRY OF HEALTH.

**THE AMENDED PART OF THE ORIGINAL TEXT
OF LAW No. 287/1993 ON SUJB COMPETENCE IN THE
WORDING OF LAW No. 85/1955 IS THE FOLLOWING:**

ART. I

§ 1

- (1) THE STATE OFFICE FOR NUCLEAR SAFETY (HENCEFORTH ONLY "OFFICE") IS THE CENTRAL BODY OF STATE ADMINISTRATION OF THE CZECH REPUBLIC FOR STATE SUPERVISION OVER NUCLEAR SAFETY AND PROTECTION AGAINST IONIZING RADIATION.**

- (2) THE OFFICE IS BASED IN PRAGUE.**

- (3) THE OFFICE IS HEADED BY A CHAIRMAN, WHO IS APPOINTED AND RECALLED BY THE GOVERNMENT OF THE CZECH REPUBLIC.**

§ 2

THE COMPETENCE OF THE OFFICE COVERS:

- A) STATE SUPERVISION OVER THE NUCLEAR SAFETY OF NUCLEAR FACILITIES, OVER THE MANAGEMENT OF RADIOACTIVE WASTE AND SPENT NUCLEAR FUEL,**
- B) STATE SUPERVISION OVER NUCLEAR MATERIALS, INCLUDING THEIR ACCOUNTANCY AND CONTROL,**
- C) STATE SUPERVISION OVER THE PHYSICAL PROTECTION OF NUCLEAR FACILITIES AND NUCLEAR MATERIALS**
- D) STATE SUPERVISION OVER SELECTED MATERIALS, FACILITIES, AND TECHNOLOGIES USED IN THE NUCLEAR INDUSTRY, AND MATERIALS AND FACILITIES OF DUAL USE,**
- E) STATE SUPERVISION OVER PROTECTION AGAINST IONIZING RADIATION**
- F) COORDINATION OF THE OPERATIONS OF THE RADIATION MONITORING NETWORK IN THE TERRITORY OF THE CZECH REPUBLIC, AND ENSURANCE OF INTERNATIONAL EXCHANGE OF DATA AND INFORMATION ABOUT THE RADIATION SITUATION.**

§ 3

THE OFFICE IS THE EXPONENT OF TECHNICAL COOPERATION WITH THE INTERNATIONAL ATOMIC ENERGY AGENCY.

THE LAW WHICH CAME INTO FORCE ON 1ST JULY 1995 IN FACT FUSED THE SUPERVISORY BODIES OF NUCLEAR SAFETY AND PROTECTION AGAINST RADIATION. IN PRACTICE THIS INVOLVED THE FOLLOWING CHANGES:

- 1) PARTS OF THE DEPARTMENTS OF THE HYGIENE OF RADIATION OF REGIONAL STATIONS OF HYGIENE, THE PRAGUE STATION OF HYGIENE, AND THE INSTITUTE OF HYGIENE OF LABOR IN THE URANIUM INDUSTRY IN PŘÍBRAM WERE TRANSFERRED TO SUJB, AND SUJB REGIONAL CENTERS WERE ESTABLISHED IN PRAGUE, PLZEŇ, ČESKÉ BUDĚJOVICE, ÚSTÍ NAD LABEM, HRADEC KRÁLOVÉ, BRNO, AND OSTRAVA.

- 2) THE HYGIENE OF RADIATION CENTER OF THE STATE HEALTH INSTITUTE IN PRAGUE WAS TRANSFERRED TO SUJB, AND THE STATE INSTITUTE OF PROTECTION AGAINST RADIATION WAS SET UP AS A BUDGETARY ORGANIZATION OF SUJB.

- 3) SUJB WAS REORGANIZED INTO THREE SECTIONS, HEADED BY SUJB DEPUTY CHAIRMEN :
 - A) - SECTION OF NUCLEAR SAFETY
 - B) - SECTION OF PROTECTION AGAINST RADIATION
 - C) - SECTION OF MANAGEMENT AND TECHNICAL SUPPORT.

STATE SUPERVISION OVER NUCLEAR SAFETY IN NUCLEAR FACILITIES IS BASED ON LAW No. 28/1984 AND THE BUILDING LAW No. 50/1976 WHICH JOINTLY STIPULATE ESPECIALLY THE LICENSING PROCESS OF THE CONSTRUCTION OF NUCLEAR FACILITIES.

BESIDES LAW No. 28/1984, SPECIFIC DEMANDS ON THE ENSURANCE OF NUCLEAR SAFETY IN NUCLEAR FACILITIES ARE CONTAINED IN A SYSTEM OF DECREES OF THE FORMER ČSKAE, COVERING ALL IMPORTANT PHASES OF THE CONSTRUCTION OF NUCLEAR FACILITIES FROM THEIR SITING, DESIGNING AND QUALITY ENSURANCE UP TO THEIR COMMISSIONING AND THE ACTUAL OPERATION. THESE REGULATIONS ARE IN KEEPING WITH INTERNATIONAL RULES AND RECOMMENDATIONS OF THE INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA).

CONCLUSION

LAW No. 85/1995 CONSTITUTED THE STATE OFFICE FOR NUCLEAR SAFETY AS THE INTEGRATED BODY OF STATE ADMINISTRATION PERFORMING STATE SUPERVISION OVER THE ENTIRE SPHERE OF NUCLEAR ENERGY AND IONIZING RADIATION. THE LAW LEFT INTACT THE RIGHTS AND DUTIES OF SUBJECTS OPERATING IN NUCLEAR POWER ENGINEERING AND USE OF IONIZING RADIATION. THEY ARE GUIDED BY REGULATIONS IN PLACE PREVIOUSLY. PROCEDURES IN STATE SUPERVISION OVER NUCLEAR SAFETY AND PROTECTION AGAINST RADIATION WILL BE DEFINITELY STIPULATED IN THE ATOMIC LAW WHICH IS BEING DRAFTED.

Act No. 28 from March 22, 1984

on the

State Supervision of the

Nuclear Safety

of Nuclear Facilities

§ 2 Definitions:

Nuclear Facilities:

- NUCLEAR REACTORS
- STORAGE, TREATMENT, DISPOSAL FACILITIES FOR
 - NUCLEAR FUELS
 - RADIOACTIVE WASTE

Nuclear Safety:

	STATE	&	ABILITY
NUCLEAR FACILITY (TECHNOLOGY)	MAINTENANCE VERSUS DEGRADATION		GIVEN BY GESIGN
&			
PERSONNEL	WORKING CONDITIONS		GIVEN BY ADEQUATE TRAINING

TO AVOID (PREVENT):

- UNCONTROLLED CHAIN REACTION
- UNCONTROLLED RELEASE OF RADIOACTIVITY
- OR IONIZING RADIATION

Responsible Organization

- CONSTRUCTING ORGANIZATION
- OPERATING ORGANIZATION
- TRANSPORTING ORGANIZATION
(NUCLEAR MATERIALS)

§ 3 The State Nuclear
Safety Authority:

FORMER C S A E C S O N S

RESPONSIBILITY FOR REGULATORY FUNCTIONS

CHAIRMAN OF S O N S

§ 4 Any nuclear facility -
subject of the state
regulatory function

(DOUBTS SOLVES THE SONS)

§ 5 Performance of regulatory
function

- SUPERVISION OVER NUCLEAR SAFETY
- COOPERATION WITH OTHER REGULATORY BODIES
- DISCUSSION OF BACKFITTING MEASURES WITH RESPONSIBLE ORGANIZATION
- PARTICIPATION IN R&d AND INTERNATIONAL COOPERATION
- RESPONSIBILITY FOR INTERNATIONAL CONVENTIONS IN GIVEN ARREA

§ 6 Regulatory decisions

- a) - SITE APPROVAL
 - CONSTRUCTION PERMIT
 - OPERATING LICENCE
- } PART OF
LICENSING
PROCESS
- b) APPROVAL OF COMMISSIONING STAGES
 - FUEL LOADING
 - PHYSICAL START-UP
 - POWER START-UP
 - TRIAL OPERATION
 - c) DESIGN CHANGES AFFECTING NUCLEAR SAFETY
 - d) TRANSPORT OF NUCLEAR MATERIALS
 - e) STORAGE, TREATMENT & DISPOSAL OF NUCLEAR MATERIALS
- DECISIONS → 2 MONTHS

§ 7 Regulatory approvals

- TECH SPEC
 - QA PROGRAMMES
 - COMMISSIONING PROGRAMMES
 - CHANGES OF APPROVED DOCUMENTATION
- (2 months)

§ 8 Personnel (RESPONSIBLE ORGANIZATION)

REGULATORY AUTHORITY:

- DETERMINES FUNCTIONS AFFECTING NUCLEAR SAFETY
(selected personnel)
- SETS REQUIREMENTS ON SELECTED PERSONNEL
- GRANTS OPERATOR LICENCES
- GRANTS AUTHORIZATION FOR PERSONNEL TRAINING
- APPROVES CONTENT OF PERSONNEL TRAINING
- NOMINATES THE STATE EXAMINATION COMMISSION

§ 9 Inspector General & Nuclear Safety Inspectors

- APPOINTED BY CHAIRMAN
- UNIVERSITY EDUCATION + ADEQUATE EXPERIENCE
IN THE GIVEN FIELD

✓

§ 10 Inspectors are entitled:

- TO ORDER MEASURES AGAINST NONCOMPLIANCE WITH APPROVED DOCUMENTATION
- TO ORDER IMMEDIATE ACTIONS IN CASE OF ACUTE ENDANGERING OF NUCLEAR SAFETY
- TO REQUIRE INSPECTIONS, TEST ETC. TO VERIFY NUCLEAR SAFETY
- TO VERIFY ABILITY AND KNOWLEDGE OF SELECTED PERSONNEL
- TO WITHDRAW OPERATOR LICENCE
- TO ENTER DURING INSPECTION NPP, MANUFACTURES, DESIGN ORGANIZATION etc. AND REQUIRE NECESSARY INFORMATION

§ 11 Inspectors check:

- COMPLIANCE WITH REGULATIONS, TECH SPEC, OPERATING PROCEDURES
- COMPLIANCE WITH BINDING CONDITIONS
- PREPAREDNESS FOR COMMISSIONING
- ENSURANCE OF NUCLEAR SAFETY DURING DESIGN CHANGES AND DECOMMISSIONING

§ 12 Inspection protocol

- DISCUSSED WITH HEAD OF RESPONSIBLE ORGANIZATION

§ 13 Reactor Shut - down

IN CASE OF EMERGENCY CHAIRMAN OR INSPECTOR GENERAL

§ 14 Duties of Responsible Organization

- TO SUBMIT DOCUMENTATION
- TO CREATE ADEQUATE CONDITIONS FOR INSPECTION
- TO REPORT WITHOUT DELAY ALL EVENTS AFFECTING NUCLEAR SAFETY
- IN CASE OF NON-COMPLIANCE WITH TECH SPEC TAKE NECESSARY MEASURES INCLUDING SHUTDOWN REACTOR

! OVERALL RESPONSIBILITY FOR NUCLEAR SAFETY !

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