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The role of the European Community  
since the Chernobyl accident

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*European Commission*

*DG TREN H4*

# The role of the European Community since the Chernobyl accident

- ECURIE-Decision (87/600/Euratom)
- Information Directive (89/618/Euratom)
- Basic Safety Standards (96/29/Euratom)
  - Title IX: Intervention
  - ICRP – 2006?
- Foodstuff legislation
  - Post Chernobyl
  - In case of a future accident

# The role of the European Community since the Chernobyl accident

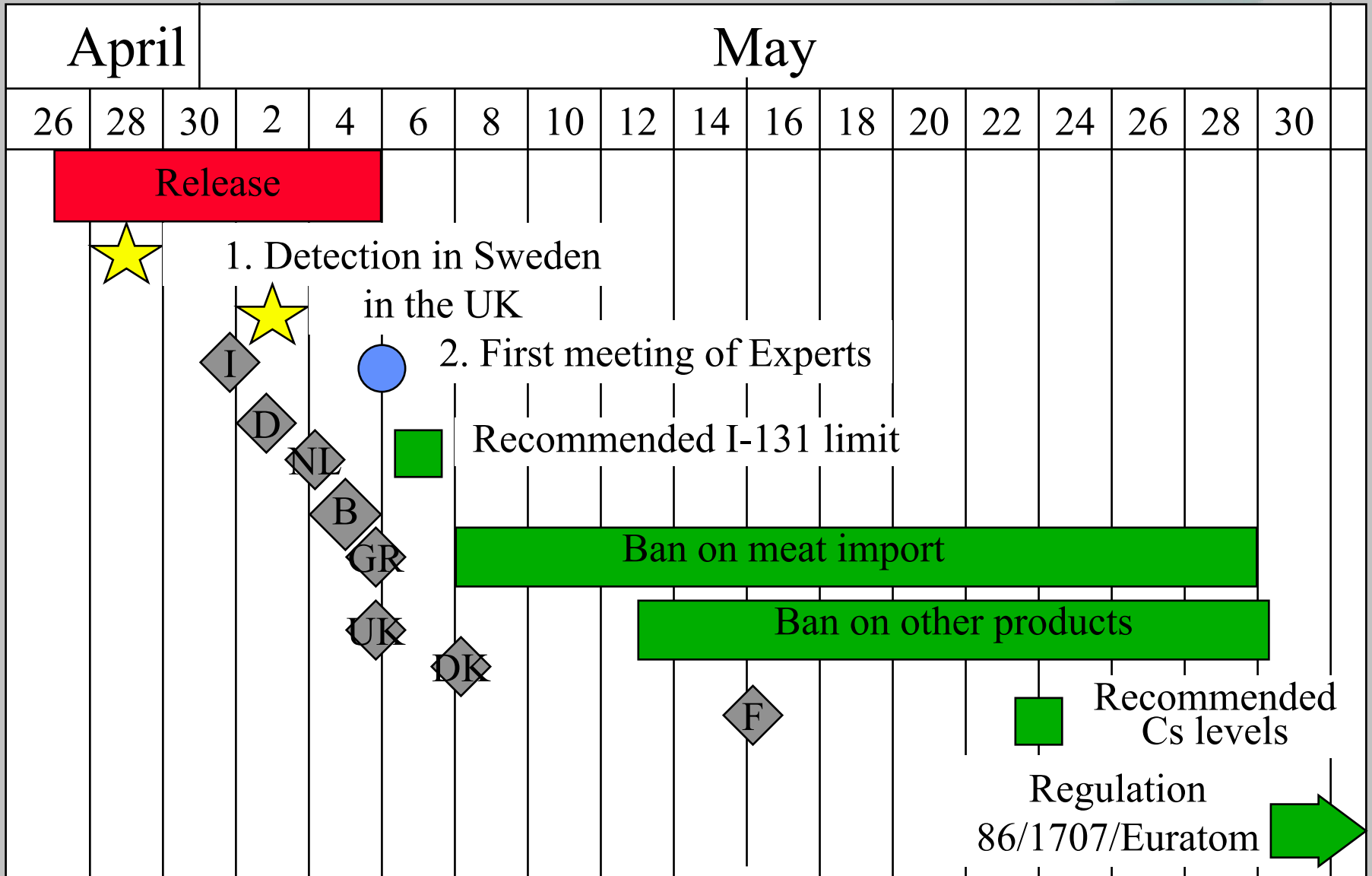
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# Council Decision 87/600/Euratom

- **ECURIE-IAEA Convention on early exchange of information**
- **Immediate transmission of nuclear alert**
  - After checking the credibility of the source
  - Validity of the information
- **Permanent duty arrangements (Bxl/Lux)**
- **Dedicated software (CoDecS) / fax**
- **Information exchange:**
  - **EURDEP (environmental monitoring)**
  - **ENSEMBLE (meteorological forecasts)**

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## National control measures

	B	D	DK	E	F	GR	I	IRL	L	NL	P	UK
wash vegetables	*		*			*	*			*		
avoid vegetables						*			*	*		
250 Bq/kg vegetables		*										
1000 Bq/kg vegetables	*											
prohibit vegetables							*					
storage of food					*	*						
do not drink rainwater						*						*
500 Bq/l I Milk	*	*				*				*		
prohibit sheep and goats milk						*				*		
prohibit sheep and goats meat						*						*
no fresh fodder	*		*				*			*		
frequent washing						*						

- 06.05.86 Recommendation 86/156/EEC on maximum levels in milk and vegetables
- 07.05.86 Decision 86/157/EEC on banned meat import
- 12.05.86 Ban on certain agricultural products (86/1388/EEC)
- 30.05.86 Import conditions for agricultural products (86/1707/EEC)

- 30.09.86 Extension of 86/1707/EEC (86/3020/EEC)
- 27.02.87 Extension of 86/1707/EEC (87/624/EEC)
- 14.12.87 ECURIE-Decision (87/600/Euratom)
- 22.12.87 Revised import conditions for agricultural products (87/3955/EEC)
- 22.12.87 Maximum permissible levels for future emergencies (87/3954/Euratom)
- 13.04.89 Additional levels for foodstuffs (89/944/Euratom)
- 18.07.89 Additional levels for foodstuffs (89/2218/Euratom)
- 18.07.89 Export of foodstuffs(89/2219/Euratom)
- 27.11.89 Information Directive (89/618/Euratom)
- 21.12.89 Amendment 87/3955/EEC (89/4003/EEC)
- 22.03.90 Renewal of import conditions for agricultural products (90/737/EEC)
- 29.03.90 Additional levels for feeding stuffs(90/770/Euratom)
- 22.01.91 List of excluded products (91/146/EEC)
- 09.03.92 New list of excluded products(92/598/EEC)
- 21.06.93 New list of excluded products(93/1518/EEC)
- 13.12.94 Positive list of products (94/3034/EC)
- 28.03.95 extension of 90/737/EEC (95/686/EC)
- 27.07.99 detailed rules (99/1661/EC)
- 20.03.00 extension to 2010 (2000/616/EC)
- 24.07.00 list of products (2000/1609/EC)
- 27.07.00 new entry points (2000/1627/EC)



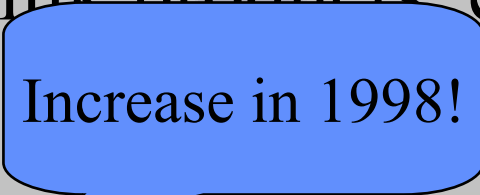
# Chernobyl Regulation

- Regulation 2000/616-1990/737
- applies in the aftermath of the Chernobyl accident
- only Caesium isotopes considered
- pertains to import from third countries
  - release for free circulation
  - possible higher limits to national produce for internal consumption
- ad-hoc list of products

# Chernobyl Regulation

- 30 May 1986
- Caesium isotopes
  - 370 Bq/kg for dairy produce/babyfood
  - 600 Bq/kg for other foodstuffs
- extended till 31 March 2010

# 737/90 ad-hoc list

- live animals (not for reproduction)
- meat
- milk and milk products, eggs, honey
- ~~potatoes~~  Increase in 1998!
- mushrooms (except fresh cultivated)
- wild berries (vaccinium myrtillus)
- ~~tea, herbs~~

# Commission Regulation (EC) 1661/1999

- Wild mushrooms
  - increase in import notifications (1998)
  - documentary checks
    - export certificates
    - each consignment > 10 kg
  - restricted number of customs offices
  - list of third countries

# Regulation (EC) 1661/1999

- Animals for slaughter
  - specific customs rules
  - certificate
    - subject to system of checks
- General
  - proportionate intensity of controls
    - degree of contamination
    - export certificates
  - destruction or return
    - charges
  - Rapid Alert System (92/59/EEC)

# Commission Recommendation

## COMMISSION RECOMMENDATION

of 14 April 2003

on the protection and information of the public with regard to exposure resulting from the continued radioactive caesium contamination of certain wild food products as a consequence of the accident at the Chernobyl nuclear power station

*(notified under document number C(2003) 510)*

*(2003/274/EC)*

- On health protection from certain wild food products contaminated as a result of the Chernobyl accident
  - game, mushrooms, berries
  - information to local population
  - restriction on placing on the market
    - 600 Bq/kg

# Chernobyl Regulation - Applicability -

- Until
  - 31 March 2010
  - ad-hoc list vanishes
- or entry into force of Regulation 3954/87
  - new radiological emergency

- 15.07.80 Basic Safety Standards (80/836/Euratom)
- 03.09.84 Amended Standards (84/467/Euratom)
- **26.04.86 Chernobyl**
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# Regulation 3954/87

- in case of a nuclear accident or radiological emergency
- pertains to:
  - placing on the market
  - export (2219/89)
- babyfood, dairy produce, other foodstuffs, beverages, feeding-stuffs
- isotopes of Sr, I, Cs + other, alpha

# Nuclide categories

- isotopes of strontium, notably Sr-90
- isotopes of iodine, notably I-131
- alpha-emitting isotopes of plutonium and transplutonium elements, notably Pu-239, Am-241
- All other nuclides of half-life greater than 10 days, notably Cs-134, Cs-137
  - C-14 and Tritium not included

# EU maximum permitted levels in foodstuffs (future accident) Bq/kg

	<b>Reconstituted FOODSTUFFS</b>			
	<b>Baby food</b>	<b>Dairy produce</b>	<b>other</b>	<b>Beverage</b>
<b>Sr-90</b>	75	125	750	125
<b>I-131</b>	150	500	2000	500
<b>Pu-239</b>	1	20	80	20
<b>Cs-134/137</b>	400	1000	1250	1000

# Codex Alimentarius (FAO/WHO)

Sv/Bq	Radionuclides	Bq/kg
10E-6	Am-241, Pu-239	10 (1)
10E-7	Sr-90	100
10E-8	I-131, Cs-134,-137	1000

**PROPOSED DRAFT REVISED GUIDELINE LEVELS FOR RADIONUCLIDES IN FOODS  
CONTAMINATED FOLLOWING A NUCLEAR OR RADIOLOGICAL EMERGENCY  
FOR USE IN INTERNATIONAL TRADE**

**(At Step 3 of the Procedure)**

**TABLE 1: GUIDELINE LEVELS (IN Bq/kg) FOR RADIONUCLIDES IN FOODS**

<b>Radionuclides in Foods</b>	<b>Guideline Level (Bq/kg)</b>	
	<b>Infant Foods*</b>	<b>Other Foods</b>
$^{238}\text{Pu}$ , $^{239}\text{Pu}$ , $^{240}\text{Pu}$ , $^{241}\text{Am}$	1	10
$^{90}\text{Sr}$ , $^{106}\text{Ru}$ , $^{129}\text{I}$ , $^{131}\text{I}$ , $^{235}\text{U}$	100	100
$^{35}\text{S}$ , $^{60}\text{Co}$ , $^{89}\text{Sr}$ , $^{103}\text{Ru}$ , $^{134}\text{Cs}$ , $^{137}\text{Cs}$ , $^{144}\text{Ce}$ , $^{192}\text{Ir}$	1000	1000
$^3\text{H}^{**}$ , $^{14}\text{C}$ , $^{99}\text{Tc}$	1000	10000

\* When intended for use as such.

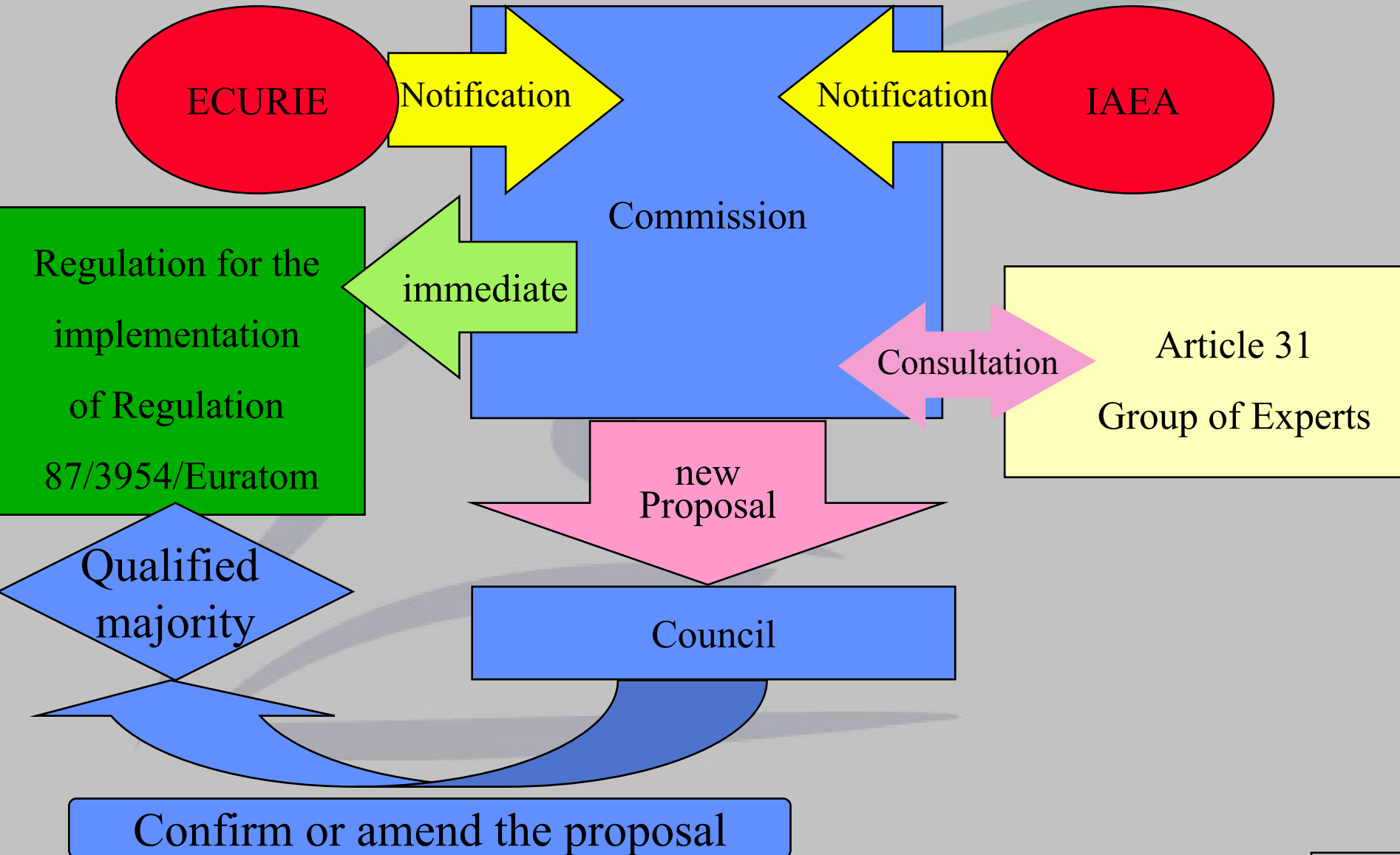
\*\* This represents the value for organically bound tritium.

# Regulation 3954/87

## Cs-levels

<b>Foodstuffs</b>	
Baby foods	400
dairy produce	1000
other	1250
beverages	1000
<b>Feedingstuffs</b>	
pigs	1250
poultry, lamb, calves	2500
other	5000

# Radiological emergencies



# Foodstuff regulation

## - entry into force -

- notification of an accident
  - Community arrangements
  - IAEA convention
- adoption of a Commission Regulation
  - if circumstances so require
  - valid for less than 3 months
- within 1 month:
  - proposal of the Commission to adapt/confirm Regulation
  - upon advice of Art. 31 Group of Experts
  - as low as reasonably achievable
  - for a limited time period
- before expiration:
  - adoption by Council of proposal
  - if no decision: provisional Regulation continues to apply



# Emergency response

- short term:
  - immediate application of pre-established levels
  - immediate countermeasures
    - ⇒ animals
    - ⇒ vegetables
  - prompt communication with public
- intermediate term:
  - rapid assessment of the contamination
  - evaluation of the economic impact
  - envisage need for correction of the situation
  - establishment of adequate restrictions
- long term:
  - foodstuff monitoring
  - agricultural countermeasures / food processing
  - stakeholder / consumer involvement
  - return normal

The normalisation of the food market will be an essential condition for the rehabilitation of rural areas



[http://europa.eu.int/comm/energy/nuclear/radioprotection/index\\_en.htm](http://europa.eu.int/comm/energy/nuclear/radioprotection/index_en.htm)