



# **IRRADIATOR TECHNOLOGY H-315**

## **SESSION 1**

### **Introduction**



# IRRADIATOR TECHNOLOGY FOR INSPECTORS

- **Objectives:**

- Familiarization with irradiator technology and safety systems
- Hands-on demonstrations with full size commercial irradiator





**CONSTRUCTION  
OF THE**



**By Yves Doyle**



## THE AGREEMENT

- On December 1, 1985 A.E.C.L. – RCC & IAF – CRESALA signed the agreement



- Creating the:

**Canadian Irradiation Centre**



- Research

- Develop

- Demonstrate

- Promote

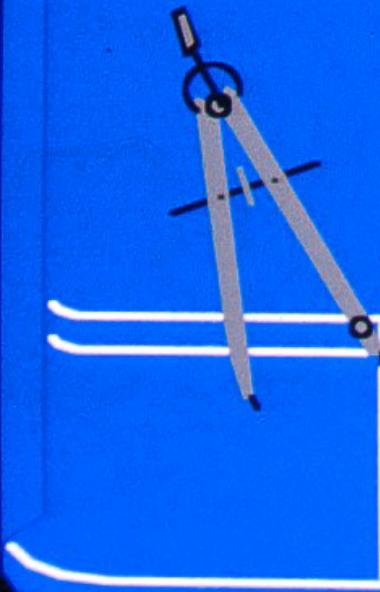
- Educate



PLANNING  
DESIGNING  
PUBLIC TENDERING

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JANUARY 1986  
TO  
AUGUST 1986





- Construction time:  
September 9, 1986  
To May 29, 1987







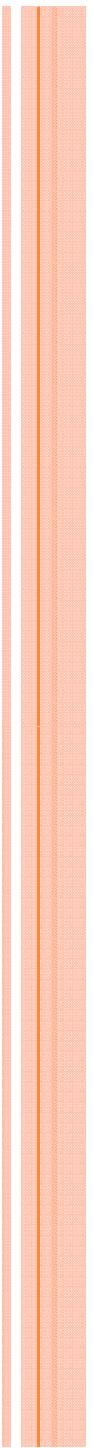














## IRRADIATION CAPABILITIES

- Full scale irradiator
- Underwater calibrators (2)
- Gammacell 220 & 1000 elite
- Full dosimetry laboratory



## C.I.C. IRRADIATOR

( 1 of 2 Slides)

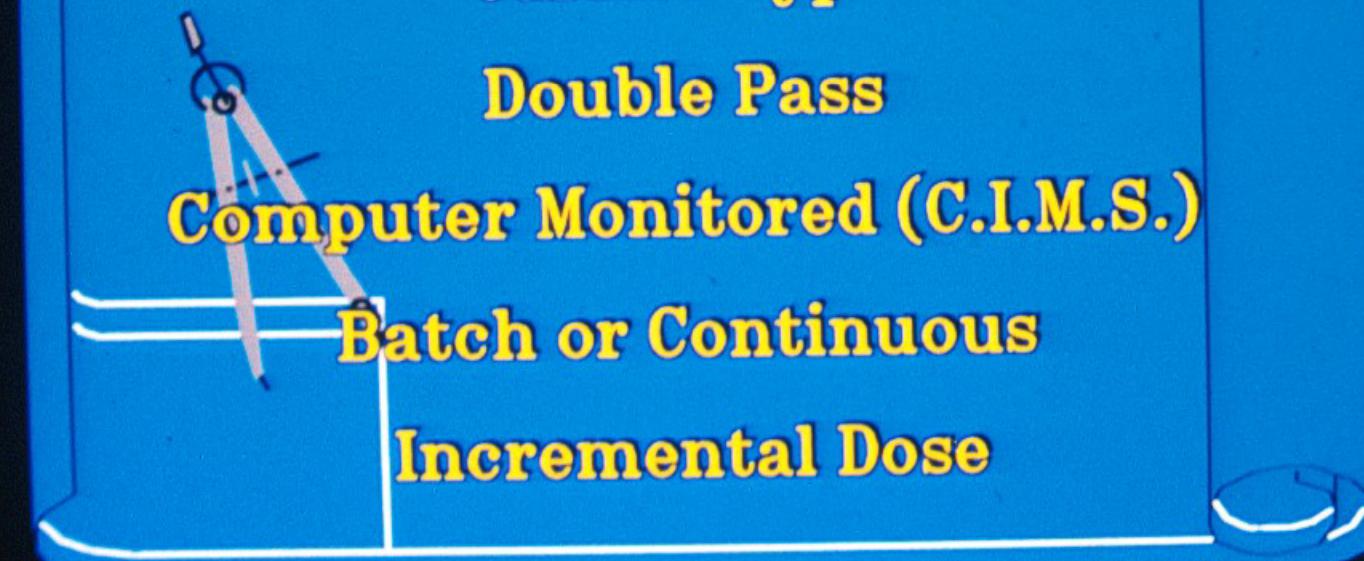
**Carrier Type**

**Double Pass**

**Computer Monitored (C.I.M.S.)**

**Batch or Continuous**

**Incremental Dose**



## C.I.C. IRRADIATOR

( 2 of 2 Slides)

2 Source to Product Distances

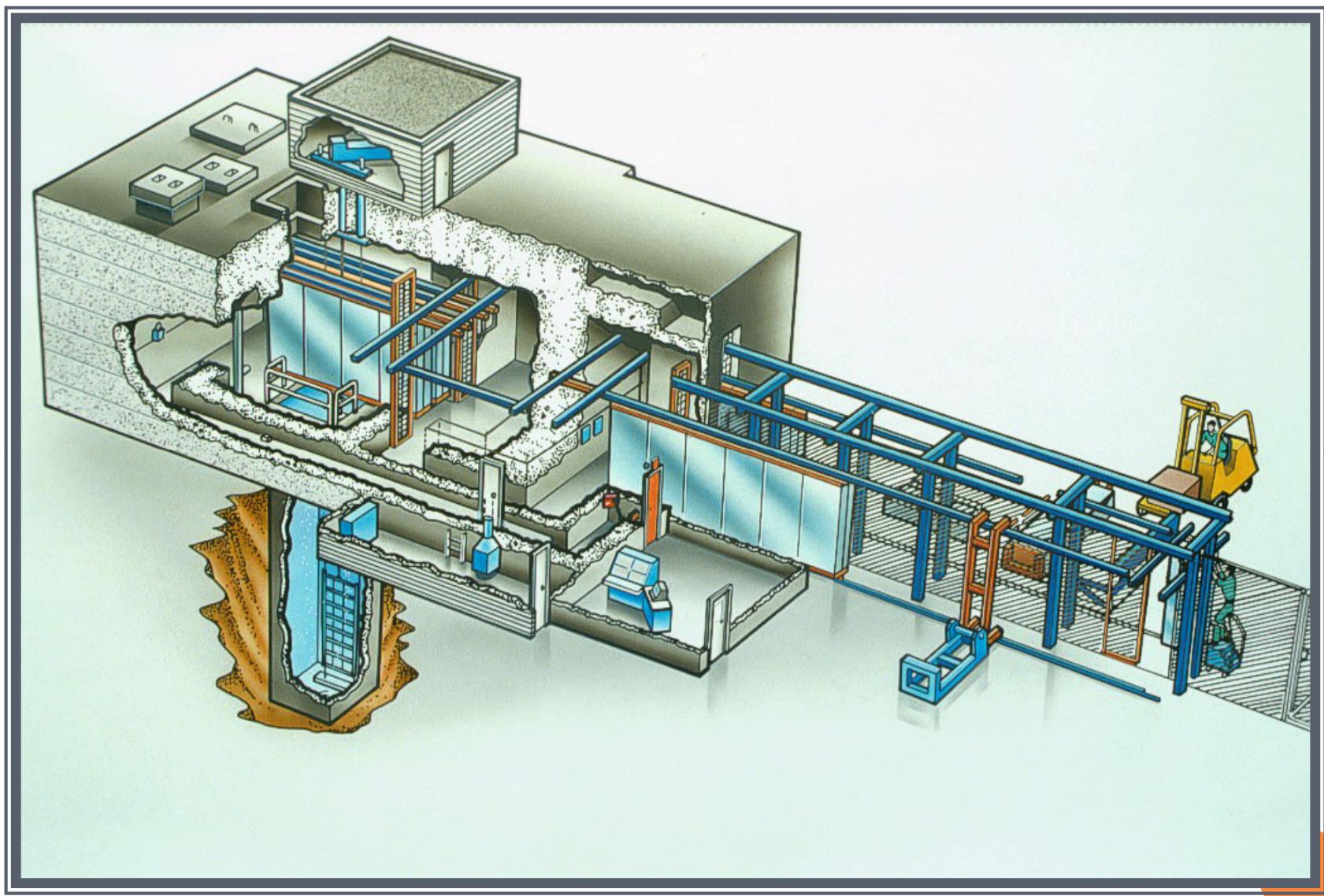
Shield for 3,000,000 Curies

Source Overlapping

Product Overlapping

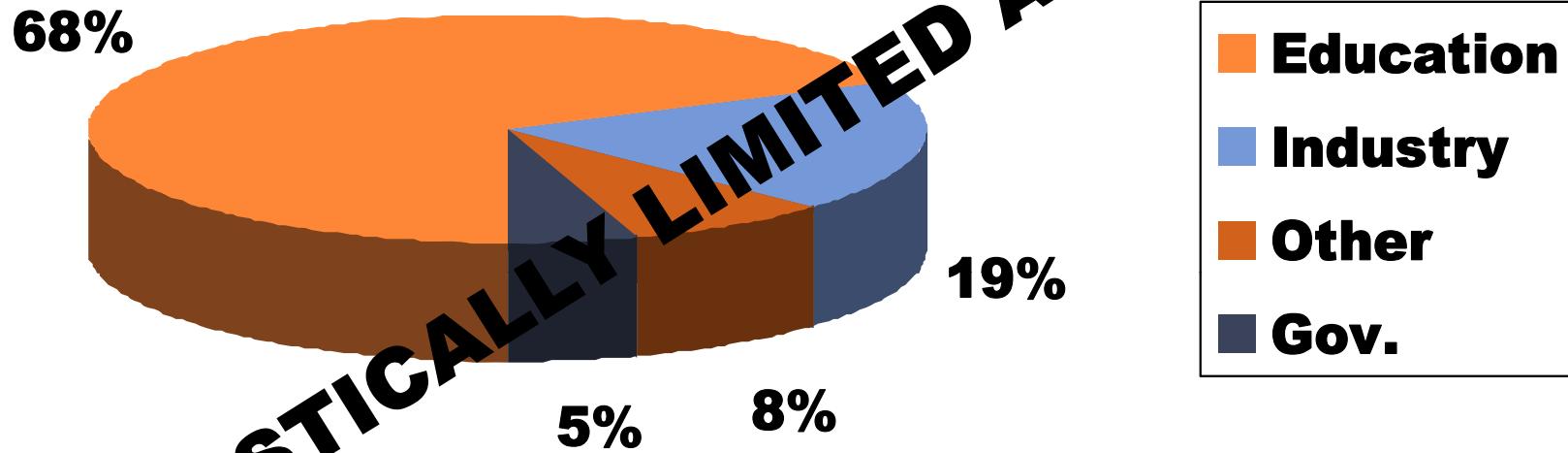
Carrier: 2 X (24" x 48" x 54")





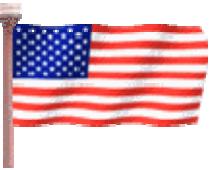


# VISITORS (500-1000 PER YEAR)



Thailand, Brazil, Canada, Saudi Arabia, USA, Taiwan, Israel, Malaysia, France, Belgium, Japan, Argentina, Chili, Peru, Cuba, England, Germany, Ireland, Russia, Vietnam, Korea, Algeria, India, Indonesia, Spain, Egypt. . .





## IRRADIATIONS

- Absorbent material
- Spices
- Cosmetics
  - Clay for face mask
  - Body paint
  - Shaving gel
  - Body creams
- Medical devices





## IRRADIATIONS ... 2

- Bovine serum
- Reactor & satellite components
- Animal feed
- Bottles & caps
- Corks for wine bottles
- Golf balls





## IRRADIATIONS ... 3

- Reference material
  - Sediment
  - Water
  - Freeze dry caribou skin
- Human bones
- Pharmaceuticals
- Dog chews



## CUSTOMER DEMONSTRATIONS

- Nortrack
- Nordose
- Newer control console





## TESTS / RESEARCH

- Papaya, mangoes, clementines
- Beehives
- Poultry
- Shrimps
- Red meat





## COURSES

- Radiation Safety for Irradiator Operators
- Industrial Operator
- Radiation Safety Officer (Ind. Irr.)
- Basic & Advanced Dosimetry
- Radiation Safety Officer (Res. Irr.)

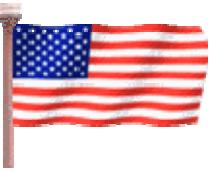




## COURSES ... 2

- Irradiation Facility Management
- Irradiator Technology for Inspectors
- Radiation Safety Review for Operators
- Food Irradiation Seminar
- Custom courses on demand





*The end*



**nordion**  
SCIENCE ADVANCING HEALTH