

CONTENTS

1.	INTRODUCTION	1
1.1.	Background	1
1.2.	Objective	1
1.3.	Scope	1
1.4.	Structure..	2
2.	CIRCUMSTANCES OF THE ACCIDENT	2
2.1.	General overview	2
2.2.	Radiography equipment	4
3.	MEDICAL ASPECTS OF THE ACCIDENT	4
3.1.	Initial medical management in the Islamic Republic of Iran	4
3.2.	Further treatment at Institut Curie, Paris	5
3.3.	Subsequent events in the Islamic Republic of Iran	7
3.4.	Immunological investigation	8
3.4.1.	Introduction	8
3.4.2.	Materials and methods	9
3.4.3.	Results and discussion	9
3.4.4.	Conclusions of immunological studies	11
3.4.5.	Status at the end of the year 2000	12
4.	PHYSICAL RECONSTRUCTION OF EXPOSURES	12
4.1.	Estimation of activity of the ¹⁹² Ir source	12
4.2.	Scenario A: Source in a pocket, in contact with skin	12
4.3.	Scenario B: Source at a distance of 20 cm from the skin	13
4.4.	Scenario C: Moving source in a loose pocket	14
4.5.	Comment on dose reconstruction	14
5.	DOSE ESTIMATION FROM CLINICAL OBSERVATIONS AND LABORATORY INVESTIGATIONS	14
5.1.	Prodromal symptoms	14
5.2.	Haematological data	14
5.3.	Biological dosimetry findings	15
5.4.	Skin lesions.	17

5.4.1.	Chest	17
5.4.2.	Right elbow	18
5.4.3.	Left palm	18
5.4.4.	Right anterior thigh	19
6.	CONCLUSIONS AND RECOMMENDATIONS	19
6.1.	Lessons learned	19
6.1.1.	Whole body exposure	19
6.1.2.	Local (skin) exposures	20
6.2.	Recommendations	20
	REFERENCES	21
	FIGURES AND PHOTOS	23
	CONTRIBUTORS TO DRAFTING AND REVIEW	46