ABU DHABI OIL REFINING COMPANY (TAKREER)

RUWAIS REFINERY EXPANSION (RRE) PROJECT

PROJECT NO. 5578 / AGREEMENT NO. 09-5578-E-4

EPC PACKAGE - 4 : TANKAGE AND ASSOCIATED INTERCONNECTING PIPING

DOCUMENT / DRAWING COMMENTS SHEET

COMMENTS TO BE RETURNED TO:
COMPANY/PMC

FAX NO.:

BY DATE:

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By: **Signed** **Date**

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2. COMMENTS AS NOTED : WORK MAY PROCEED SUBJECT TO COMPLIANCE WITH AND INCORPORATION OF COMMENTS ☐
3. NO COMMENTS : WORK MAY PROCEED ☐
4. INFORMATION ONLY. : ACCEPTED FOR INFORMATION ONLY ☐

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RADIATION CONTROL PROCEDURE

AGREEMENT NO. : **09-5578-E-4**

PROJECT NAME : **Ruwais Refinery Expansion Project EPC-4: Tankage & Associated Interconnecting Piping**

COMPANY : **Abu Dhabi Oil Refining Company (TAKREER)**

PMC : **Mott MacDonald Ltd.**

CONTRACTOR : **Daewoo Engineering & Construction Co., Ltd.**

This page is a record of all revisions of this document. All previous issues are hereby superseded and are to be destroyed.

DOC. CLASS: T/1

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REV	DATE	REASON FOR ISSUE	PREP	CHKD	REVD	APP'D	COMPANY
0	27 Oct 2010	Issued For Construction	D. Bhandari	A. Mesquita	DY Kim	M Heo	
A	16 August 10	For Review and Comment	C Wardman	DY Kim	J Brand	M Heo	
SIGNED (Initials)							

NOTES:

(a) Revisions are denoted by a vertical line placed in the right-hand margin against the revised text.

(b) PREP = Prepared by, CHKD = Checked by, REVD = Reviewed by, APP'D = Approved by.

(c) In case of conflict between any requirements stipulated in this document with the contractual requirements, the contractual requirements shall prevail.

REVISION INDEX DETAILS

Rev	Location of Change	Brief Description of Change

CONTENTS

1. INTRODUCTION

1.1 Purpose

The purpose of this procedure is to provide safe work practices that will control radiation devices and limit personnel exposure to acceptable level.

1.2 Scope

The scope of this procedure covers the control, necessary requirements and provisions for safe work practices, including personnel exposure limit and storage of radioactive isotopes used for the Non Destructive examination on the Project

DEC HSE Department strictly controls the storage facility within the worksite.All employees performing radiographic work shall be licensed and approved by the appropriate Government authorities. Documentation proving a valid license and government approval shall be examined prior to allowing any work to proceed.

2. RESPONSIBILITIES

2.1 Project Manager

The Project Manager is responsible for ensuring that the requirements of this procedure are adhered strictly to during execution of the project.

2.2 Section Manager

The Section Manager is responsible for ensuring that;

- Monitoring and checking of the compliance of this procedure
- All the tools used on the site for radiography purposes have been inspected and are safe to use.
- Selection of appropriate qualified Manpower, equipment and funds are available to store, use the ionized material in a safe manner.
- Apply and comply the instruction of PTW.

2.3 HSE Manager

The HSE Manager is responsible for ensuring that, radiography tools shall meet the international standard and personnel working for radiography works are fully trained & certified as Classified Person. He shall also make sure that;

- Proper training is conducted
- Toolbox meeting is conducted.
- JSA is applied.
- All identified necessary works and precautions are properly executed.
- PTW for radiography is in place

2.4 HSE Supervisor

The HSE Supervisors are responsible for

- Identifying the radiography activities that could lead to injury or property damage.
- Ensuring that JSA related to activities is properly conducted.
- Ensuring that all the requirements mentioned in the PTW completed.
- All radiation monitors & equipments used in site are certified and calibrated.

3. DEFINITIONS

3.1 Radiation

The emission of atomic particles or electromagnetic radiation form the nucleus of an atom occurring by natural decay of radioisotopes (nuclides) and / or x-rays as produced by electrical means from portable or static equipment.

3.2 Controlled Areas

Any areas where the exceeded doses of ionizing radiation within the area are likely to exceed three tenths of any Dose Limit specified for employees or if instantaneous dose rates within the area are likely to exceed 7.5µSv/h (micro-sieverts per hour).

3.3 Supervised Areas

An areas not being a “Controlled Area”, must be designated as Supervise Area if doses of ionizing radiation within the area are likely to exceed one tenth of any dose limit specified for employees aged over 18 years or if instantaneous dose rates within the area are likely to exceed 2.5µSv/h (micro-sieverts per hour) but not more than 7.5µSv/h (micro-sieverts per hour).

3.4 Classified Person (Radiography Workers)

Personnel who are over 18 years old, licensed and/or approved by the relevant Government Authority to use and work with radioactive sources. They must have necessary knowledge, skill, training and medical fitness in handling radioactive sources

Their duties require knowledge of the operation for a safe termination of any operational exposure of ionizing radiation and the use of monitoring equipment including Emergency equipment.

3.5 Competent Person (Radiation Supervisor)

He shall be responsible for the supervision of all aspects of work involving the control, storage, use and transport of radioactive resources. Duties also include overseeing safe working practices, capability of dealing with emergencies, investigating and reporting of incidents and;

Radiation Supervisor shall be a person having complete understanding of the statutory regulations.

Appropriately trained in the field of Radiation Protection and informed of any health hazards associated with the employment.

The Radiation Supervisor must within reason, ascertain that all personnel who are working under his supervision with radioactive material possess the necessary knowledge and skill in the use of safe

procedures and they are supplied with devices as maybe necessary for safety. He should not permit radioactive sources under his control to be used by persons other than Classifies Persons.

3.6 Radiography Subcontractors

Radiography subcontractors are licensed and certified by the Government who are specialist in handling and operating radioactive resources. They should control the operational use of radioactive isotopes.

3.7 Non-Classified Person

Such persons who are not eligible to work as radiography workers. They are not permitted to be involved in work or passage where ionizing radiation is present and must be excluded from areas where ionizing radiation warning signs and barriers are erected.

3.8 Dose Equivalent

The Sievert (Sv) is the SI unit for the quantity of dose multiplied by a factor to allow for the different effectiveness of the various ionizing radiations in causing harm to tissue.

Sievert (Sv)	= 100 Rem
Rem	= 10 mSv (milli-sievert)
1 mR (milliRem)	= 10 µSv (micro-sieverts)
1 mR (milliRem)	= 0.01 mSv (milli-sieverts)

4. MANAGEMENT GUIDELINES

4.1. General Requirements

- All radioactive sources kept and used on-site shall, as a minimum, meet recognized Government standards “Range of Application”, or other internationally recognized standards approved by DEC.
- Any subcontractors who carry out radiography work shall be licensed and/or approved by the Government Authority. A copy of the valid license and/or Government Authority approval shall be submitted to the HSE Manager prior to any radioactive work on the Project.
- Radiography subcontractors shall appoint a Radiation Supervisor, who must have a complete understanding of the Regulations, and passed examinations (to prove), an appreciation of the hazards involved in the use of radioisotopes, and a basic knowledge of nucleonic equipment used.
- Radiography subcontractors shall designate Classified Persons who might in the course of work receive a dose of radiation in excess of three tenths of any relevant dose limit and to provide them with all necessary equipment required for the safe execution of work including proper personal protective equipment and medical surveillance for such persons.
- Radiography subcontractors shall ensure that the names of all persons designated as Classified Persons are entered in a Health Register, which shall be kept up to date and shall arrange a required periodical medical assessment. The names of the Classified Persons and the results of medical examinations shall be submitted to the DEC HSE Manager.

- Radiography subcontractors shall ensure that radioactive sources are not permitted to be used by anyone other than classified persons.
- Radiography subcontractors must have disposal procedures for radiation sources.
- Radiography subcontractors shall provide written procedures for the conduct of work with ionizing radiation.
- Radiography subcontractors shall monitor ionizing radiation levels.
- Radiography subcontractors shall assess the risks of incidents causing increased radiation exposures and shall provide emergency procedures against foreseeable incidents.
- Radiography subcontractors shall notify DEC HSE and assist in investigation in the case of any radiography related incidents.

4.2 Dose Limits

Dose limits for exposure to ionizing radiation are based on the recommendations of the International Committee on Radiological Protection, (ICRP), both in relation to the complete body and in relation to particular parts of the body.

Dose limits are expressed in milli sieverts (mSv) per calendar year.

The Supplementary Equivalent (SE) recommended dose limits are;

Classified Person

Limits on effective doses of 20 mSv per year, averaged over 5 years (100 mSv in 5 years) with a further provision that the effective dose should not exceed 50 mSv in any single year.

Non-Classified Person

Limits on effective doses of 2 mSv per year, averaged over 5 years (10 mSv in 5 years)

Effective dose should not exceed 5 mSv in any single year.

Individuals below the age of 18 shall not be involved in radiological work.

4.3 Permit Requirements

A Permit to Work shall be applied whenever a radioactivity will commence. A Radiography Permit supported by Radiography Certificate for any work with an ionizing radiation source.

A Permit to Work will not be issued until a source leak test has been proved satisfactory as noted on the Radiography Certificate (5578-E4-HSE-HU-00045).

4.4 Equipment Standards

Containers for Radioactive Sources

- Each radioactive source must be kept in a specially designated container with proper shielding, shutter and lock.

- The container must be clearly marked with a radiation warning sign and the words DANGER-RADIOACTIVE MATERIAL in indelible print.
- The container must be labelled the detailing nature and initial strength of the source, in curies.
- When not in use, radioactive sources must be kept in the container and stored in the designated storage area by the DEC.

X-ray Equipment

- X-ray equipment must be provided with a locking device on the main circuit.
- X-ray equipment must be inspected by a competent person at least annually for radiation leakage and proper functioning of all safety devices.
- In the case of any irregularity, the Radiation Supervisor must be informed immediately.

Monitoring Equipment

- Radiation dosimeters and film badges to be used must be of types approved by the recognized by KOSHA and /or International Standards.
- Monitors must be tested and re-calibrated at least every 12 months and after every repair, which could affect accuracy.
- Records of all such tests/repairs must be kept with the Radiation Supervisor and a copy must be submitted to the HSE Manager.

4.5 Medical Requirements

- Ensure that the names of all persons designated as Classified Persons are entered in a Health Register, which shall be kept up to date, and all Classified Persons have the required medical examination.
- All classified personnel shall have continual medical monitoring, and a copy of such a medical must be submitted to the HSE Manager.
- The period of the medical check shall be every 6 months for blood examinations and for accumulated doses and every 3 months for skin examinations and for cataracts. A copy of the results must be submitted to the HSE Manager.
- In the event that the permitted dose has been exceeded, the Radiation Supervisor for the radiography subcontractor shall refer the person to the appointed hospital for medical examination and the result shall be submitted to the HSE Manager.
- Each classified person can ask for a special medical examination if he so requires, and the radiography subcontractor shall make all arrangements for this examination.
- The record of medical examination shall be retained for five years.

5. STORAGE AND CONTROL OF RADIOACTIVE ISOTOPES

5.1 Storage

- The DEC is responsible for providing, controlling and maintaining a secure radioactive storage.
- The isotope storage area shall be located in a non-working area on the site and away from any vehicular or pedestrian traffic, but close enough to the road to avoid transportation over long distances.
- The storage shall be walled and roofed for, protection against rain and snow.
- The storage areas shall be enclosed with a 2 meter high chain link fence and each of the four communal fenced sides shall display the radioactive warning pictogram.
- The HSE group shall control the keys of the storage area fence, the storage itself and storage pits.
- It shall be so located that the resultant radiation exposure rate in any occupied area is as low as practical, particular care being taken that no person may be exposed to doses of radiation in excess of the dose limitations given by relevant statutory requirements.

5.2 Control of Radioactive Isotopes

New radioactive isotopes shall only be allowed to be brought on to the site upon written permission from the HSE Manager.

The Radiography subcontractor shall ensure that a new radioactive isotope to be stored in the storage is accompanied with:

1. Receipt Date
2. Serial Number
3. Strength of Isotope
4. Decay Chart

- The Radiation Supervisor for the radiography subcontractor shall contact the HSE Supervisor responsible for the control of isotopes for the removal of isotopes with an approved work permit.
- The HSE Supervisor and Radiation Supervisor for the radiography subcontractor will proceed to the storage and remove the isotope container from the storage pit.
- The HSE Supervisor shall log the serial number of the isotope to be taken out and lock up the storage pit the storage door and the storage area fence.
- The Radiation Supervisor for the radiography subcontractor places the isotope container on the DEC approved vehicle for transfer to the work location.
- Upon completion of the works the Radiation Supervisor for the radiography subcontractor shall contact the HSE Supervisor for the return of the isotope and both of them shall proceed to the storage area and return the isotope.

- The HSE Supervisor shall ensure the removed isotope is returned and log in the return of the isotope and lock up the pit, the storage and the storage fence.
- If radiography subcontractor wishes to return the isotope outside the working hours of the HSE Supervisor, then he shall contact the Security Manager for the return of the isotope. The Security Manager shall follow the procedure as specified above.
- No isotopes shall be kept by the radiography subcontractor after the completion of work. All isotopes removed out of the storage shall be returned immediately upon the completion of work.

6. TRANSPORT OF GAMMA RADIOGRAPHY SOURCES

In the transport of gamma radiography sources by public or private transport or by common carrier, a person with very little understanding of radiation hazards may be responsible, or become responsible for the source. This is very probable if the vehicle transporting the source is involved in an accident. This was taken into account in formulating the requirements for safe transport of gamma radiography sources given below.

During transport of a gamma radiography source the following requirements shall be fulfilled:

- The source shall be enclosed in a source container which complies with statutory requirements and which bears an appropriate label for transport of a gamma emitting radioactive material.
- The source container shall be secured to the vehicle to prevent any accidental shift under conditions normally relevant to transportation.
- The source container shall be located in or on the vehicle so that the radiation dose received by any person traveling in the vehicle is minimized. The maximum exposure rate at the position of any person in the vehicle should not exceed 0.02 mSv per hour (2 mR/H).
- The vehicle shall be equipped with a red color rotation-warning lamp and shall display at the front and at the rear of the vehicle, a radiation warning pictogram. The speed of the vehicle shall not exceed 20Km/H.
- The Radiation Supervisor for the radiography subcontractor or an appropriately trained classified person shall accompany the vehicle transporting radioactive isotopes
- The vehicle loaded with radioactive isotopes shall not be left unattended
- While the radioactive isotope is being transported, all persons in the vehicle shall wear a film badge and dosimeter
- The quantity of the radioactive isotopes shall be checked at the time of departure and on arrival.

7. NOTIFICATION OF RELEVANT GOVERNMENT STATUTORY AUTHORITY

DEC shall notify all relevant Government Statutory Authorities and Client of the location of all permanent or semi-permanent stores for gamma radiography sources under his care.

8. SITE FOR STORAGE

In selecting a suitable site for a store for gamma radiography sources, other hazards, including the proximity of combustible and explosive materials shall be taken into account.

9. RADIATION MONITORING DEVICES AND PROCEDURES

The use of radiation monitors is essential to ensure safety in the use of gamma radiography sources. Various types of radiation monitors are needed and the selection of a suitable monitor for each purpose is of prime importance. Monitoring devices to be continually available

The Subcontractor shall ensure that sufficient radiation monitoring devices of the following types, in good condition, are continually available whenever necessary and are used as follows:

- Film badges or other monitoring devices that are suitable for the regular determination of the integrated dose of radiation received during the monitoring period shall be used to monitor the individual radiation doses received by all radiography workers in the course of their duties
- Direct reading personal dose-meters shall also be used to monitor the individual radiation doses received by all radiography workers in the course of their duties, primarily to give early indication of any unusually high radiation dose to a radiography worker.
- Portable radiation survey meters of appropriate energy response shall be used to monitor the radiation levels in the neighborhood of source containers and gamma radiographer sites, and to determine the boundaries of field sites.

10. FILM BADGES AND PERSONAL DOSIMETER

10.1 Film Badges

The following rules shall apply to the wearing of film badges:

- The Subcontractor shall ensure that each radiography worker is issued with a film badge for his exclusive use. This film badge (i.e. the combination of film and holder) shall be in good condition.
- Each radiography worker shall wear his film badge at all times during the course of his duties.
- Each film badge shall be worn at waist level.
- Monitoring films, (when not being worn), and control films shall be stored in a radiation free area.
- Monitoring films shall be changed at regular intervals. After replacement, used films shall be returned immediately to the appropriate centre for assessment. They shall be accompanied by an unexposed control film and comments regarding any abnormal conditions of exposure of the used films.
- If it is known or suspected that a radiography worker has received a whole body radiation dose which exceeds 500 mR, his monitoring film shall be submitted for urgent assessment.

- If it is known or suspected that a film badge has received a high radiation dose while not being worn, a new film shall be obtained as soon as possible. The exposed film shall be returned for assessment with an explanatory note.
- The Subcontractor shall keep a record of all radiation doses recorded on monitoring films worn by his radiography personnel. All such records will be made available to DEC for auditing purposes.

10.2 Direct Reading Personal Dosimeter

The following rules shall apply to the wearing of direct reading personal dosimeter:

- Each radiography worker shall wear a dosimeter at all times during the course of his radiographic duties. It shall have a full-scale reading of at least 200 milliard and not more than 500 milliard and permit readings with a precision of ± 10 milliard from 0 to 200 milliard.
- A second dosimeter should be worn if warranted by the nature of the duties to be performed.
- The reading of each dosimeter shall be recorded before and after being worn by the Subcontractors Radiation Safety Officer.
- Before wearing, a dosimeter shall have a reading not greater than one tenth of its maximum range. Each wearer shall read his dosimeter at intervals during the working day, the frequency depending on the likelihood of exposure. If the dosimeter reading exceeds 75 percent of the maximum range, the reading shall be recorded and the dosimeter shall be recharged or replaced with another.
- If the dose received on a radiography- workers dosimeter exceeds the full-scale value, his monitoring film shall be submitted for urgent assessment.
- If the accumulated dose received on a radiography the worker's dosimeter in any one week exceeds 500 milliard during normal operations, Subcontractor shall immediately investigate the techniques used and the radiographic conditions existing in that week and shall review the planned schedule of future radiographic operations in the light of this investigation.
- The Subcontractor shall keep a record of all doses received on the dose- meters worn by his radiography workers, which will be made available to DEC upon request for auditing purposes.

11. GAMMA RADIOGRAPHY SITES

Gamma radiography sites shall satisfy the following requirement with the regard to their boundaries:

- The boundary of each gamma radiography site shall be so defined that no person outside the site can receive a radiation dose in excess of the appropriate dose limitation given by the appropriate statutory authority. In making this determination the likely occupancy of the area surrounding the site shall be taken into account. Nevertheless, the exposure rate outside the boundary shall not exceed 0.02 mSv per hour (2 mR/H).
- The boundary of each gamma radiography site shall be adequately posted with clearly legible warning notices incorporating the words "DANGER RADIOACTIVE" and an accepted radiation hazard symbol. As radiography will be carried out after normal working hours (e.g. night shift) adequate red flashing warning lights will be located at the boundary to warn personnel of the work being performed.

12. WORKING RULES AND EMERGENCY PROCEDURES

12.1 Working Rules

To ensure radiation safety it is particularly important that each person concerned in the handling or use of a gamma radiography source clearly understands all aspects of his responsibility in this regard and shall carefully carry out the working rules and emergency procedures which are applicable to his duties.

This section outlines the requirements, which shall be taken into account in formulating the working rules and emergency procedures.

Subcontractor shall ensure that the following requirements are met:

- Effective control of the radiography program shall be exercised by clearly defining the responsibilities of each radiography worker. The line of command shall be kept simple.
- Safe working practices shall be achieved by the formulation of working rules which are specifically devised for the proposed program of work and by ensuring that each radiography worker follows these rules.
- Suitable equipment to enable the working rules and emergency procedures to be efficiently carried out shall be made available by Subcontractor for use at each gamma radiography site.

12.2 Emergency Procedures

Emergency procedures designed to minimize radiation exposure of persons in the event of an incident shall be prepared for all foreseeable incidents. Emergency procedures shall be detailed, but may be partly in the form of general principles on which emergency action shall be based, since some of the detailed procedures will depend on the actual conditions of each incident. The emergency procedures thus prepared for foreseeable incidents will also serve as an indication of the appropriate line of action in the event of an unforeseen incident.

Each radiography worker shall be familiar with these emergency procedures and shall clearly understand the reasons behind them.

The names and telephone numbers of the persons to contact following an incident shall be made available to the Subcontractors personnel carrying out the work, and DEC Safety Department.

All such emergency procedures shall be submitted to Client for approval/review prior to any work commencing.

At the earliest opportunity, the radiographer in charge at the site shall notify the Subcontractor, DEC, client and the appropriate Government Statutory Authorities of the occurrence of an incident, giving a clear and concise account of the circumstances of the incident, of the action taken and of any assistance required.

If a source is lost or if the radiation dose to any person as a result of an incident was or may have been greater than 500 mR, the Subcontractor shall:

- Immediately report the incident to the appropriate Government Statutory Authority, DEC and Client.

- Submit the monitoring films of radiography workers concerned in the incident for urgent assessment.
- Subcontractor shall submit a detailed account of the incident in writing to the appropriate Government Statutory Authority, DEC and Client within three (3) days.
- Advice what action has been taken to prevent the incident from reoccurring.
- The Subcontractor shall inform the appropriate Government Statutory Authority of any special course of action which he proposes to adopt to restore the situation to normal following the incident.
- The radiographer in charge at the site where the incident occurred shall submit a report to the Subcontractor, in writing, within 24 hrs of the incident occurring.

12.3 Emergency Kit

An emergency recovery kit must be kept available and accompany the source when in transit or in used. The kit shall comprise but not limited to:

1. Sufficient amount of lead shielding or lead blanket to reduce the radiation
2. One piece of one (1) meter long isotope tongs
3. Recovery pot
4. Bulldog Cutter
5. Survey meter
6. Lead Apron
7. Warning notices and Barriers tapes
8. Torch (flashlight)

13. PLANNING OF RADIOGRAPHIC OPERATIONS

The main object of the working rules shall be to ensure that no person can receive an unnecessary radiation dose or a dose in excess of the relevant annual or quarterly dose limitation given by the relevant Government Statutory Authorities. In order to achieve this objective, it is suggested that gamma radiography operations should be planned so that, in each week, no radiography worker will receive a whole body dose greater than 100mR, no other worker will receive a whole body dose greater than 30mR and no member of the public will receive a whole body dose greater than 10mR.

14. WORKING RULES FOR GAMMA RADIOGRAPHY SITES

The working rules for all gamma radiography sites shall incorporate the rules prepared in accordance with the General Requirements for Working Rules described, with the following additional requirements:

- No gamma radiography source shall be intentionally exposed (i.e. made to be partly or wholly unshielded) unless within the physical barrier of an enclosed site or within a field site that has been barricaded sign posted and warning lights displayed in accordance with this document.
- All operations which involve the exposure of a gamma radiography source shall be the responsibility of the radiographer in charge at the site.
- At the completion of each exposure, the radiography worker who exposed the gamma radiography source shall check by a radiation measurement method, e.g. by using a survey meter that the source has been returned to its fully shielded condition.
- The radiographer in charge at a site shall ensure that a second person who is capable of taking charge in an emergency shall be readily available at all times. This second person shall be able to operate the source handling equipment in order to place the source in a shielded condition and he shall be able to use a radiation survey meter in order to ensure that radiation safety has been established.

15. MEDICAL REQUIREMENT

Recommendations concerning the nature and frequency of medical examinations for radiation workers will be in accordance with Government Statutory Requirements, and the following:

Pre-employment medical examinations

The Subcontractor shall ensure that a pre-employment medical examination is made of each radiography worker employed by him. This examination should be made in accordance with the recommendations given in the requirements of statutory authorities.

Special medical examinations

The Subcontractor shall seek the advice of the appropriate Statutory Authority with respect to the need for a special medical examination of any person who has been involved in an incident.

Medical records

The Subcontractor shall ensure that records of all medical examinations, including special examinations, of each person on his gamma radiography staff are retained for a period, which satisfies the relevant statutory authorities.

Excessive Personal Exposure

In the event of suspected excessive personnel exposure to radiation or contamination of personnel by radioactive materials; pre-arranged procedures must be followed and the DEC Medical Officer, HSE Manager and Client must be informed immediately. The Radiation Supervisor should be asked for advice.

16. ATTACHMENT

Attachment 1

1. NOTIFICATION OF RADIOGRAPHY

TO: ALL CONTRACTORS		**DATE:**
PLEASE BE ADVISED RADIOGRAPHY WILL BE TAKING PLACE ON THE PROJECT		
DAY :		
DATE :		
TIME :	FROM:	TO:
LOCATION :		

WOULD YOU PLEASE ENSURE ALL YOUR EMPLOYEES ARE MADE AWARE OF THIS ACTIVITY AND INSTRUCT THEM TO KEEP AWAY FROM THE “RADIATION AREA. REFER TO THE AREA PLOT PLAN.

SHOULD THIS ACTIVITY INTERFERE WITH YOUR PRESENT SCHEDULE PLEASE CONTACT THE WRITER AS SOON AS POSSIBLE TO ALLOW ALTERNATE ARRANGEMENTS TO BE MADE.

IF THERE IS NO REPONSE FROM THIS MEMO THE RADIOGRAPHY WILL TAKE PRIORITY AND ANY OTHER ACTIVITY IN THE AREA WILL STOP UNTIL THE RADIOGRAPHY HAS BEEN COMPLETED.

CO-OPERATION AND CO-ORDINATION OF THIS MEMO IS EXPECTED.

Project Manager	Name:	Signature:
Quality Control Manager	Name:	Signature:
Radiation Supervisor	Name:	Signature:

Attachment 2

ISOTOPE MOVEMENT RECORD FORM						
DATE	TIME OUT	SOURCE	NDT NAME	NDT SIG.	CTR SIG.	TIME IN