



# AzSPU Radiation Contingency Plan

## AzSPU-HSSE-DOC-00086-2

<b>Authority:</b>	Yuliy Zaytsev (AzSPU Safety & Compliance Manager)	<b>Custodian:</b>	John Elliott (AzSPU Senior HSE Advisor)
<b>Scope:</b>	AzSPU	<b>Document Administrator:</b>	AzSPU HSSE MS Document Coordinator
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**CONTACT DETAILS OF KEY PERSONNEL**

<b>Position Title</b>	<b>Name</b>	<b>Phone No.</b>
AzSPU Radiation Protection Single Point Accountability (SPA)	Yuliy Zaytsev (temporary)	(055) 450-7981
AzSPU Radiation Protection Advisor (RPA)	Donald Urquhart	+44(0) 01224 650658 (direct) +44(0) 7875384225 (mobile) Full contact details in Appendix B.
AzSPU Permitting & Regulatory Affairs Advisor	Arif Muganlinsky	(055) 220-6882
AzSPU Central Environment Team Manager	Faig Askerov	(055) 215-3877

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## 1. PURPOSE/SCOPE

The purpose of this document is to provide clarity regarding management of potential incidents involving radioactive materials and radiation generators.

This controlled procedure applies to AzSPU Operations PUs and Projects engaged in the drilling, production, and/or transportation of oil and gas (including support activities), and construction activities when working with ionising radiation in Azerbaijan. Contractors working on AzSPU owned or operated sites/installations are also required to align with this procedure.

This procedure does not replace, nor should it conflict with, the AzSPU Procedure for Management of Radioactive Materials and Radiation Generators ([AzSPU-HSSE-DOC-00058-2](#)).

Revision of this procedure and the operational controls detailed therein will be in accordance with the AzSPU HSSE Document Management Procedure ([AzSPU-HSSE-DOC-00025-2](#)).

## 2. DEFINITIONS

A full glossary of terms related to radiation is provided in Appendix A of the AzSPU Procedure for Management of Radioactive Materials and Radiation Generators ([AzSPU-HSSE-DOC-00058-2](#)).

### Abbreviations:

AzSPU	Azerbaijan Strategic Performance Unit
CET	Central Environment Team
DC&I	Drilling, Completions & Interventions
ERP	Emergency Response Plan
ERT	Emergency Response Team
HSE&TD	Health, safety, environment & technical directorate
LWD	Logging whilst drilling
MENR	Ministry of Ecology and Natural Resources
MES	Ministry of Emergency Situations
MoH	Ministry of Health
OIM	Offshore Installation Manager
P&RAs	Permitting & Regulatory Affairs
PU	Performance Unit
RPA	Radiation Protection Advisor
RPO	Radiation Protection Officer
RPS	Radiation Protection Supervisor
RP SPA	Radiation Protection Single Point Accountability
SOCAR	State Oil Company of the Azerbaijan Republic
mSv/h	Milli sieverts per hour
µSv/h	Micro sieverts per hour

### 3. GENERAL REQUIREMENTS

General requirements pertaining to radiation safety are detailed in Section 3.1 of the AzSPU Procedure for Management of Radioactive Materials and Radiation Generators ([AzSPU-HSSE-DOC-00058-2](#)).

### 4. KEY RESPONSIBILITIES

A full description of the responsibilities with regard to radiation protection is provided in Section 4 of the AzSPU Procedure for Management of Radioactive Materials and Radiation Generators ([AzSPU-HSSE-DOC-00058-2](#)). A summary of key responsibilities directly applicable to this Plan are provided below:

#### **AzSPU Radiation Protection Single Point Accountability (RP SPA)**

The RP SPA resides in the AzSPU Safety & Compliance Team. The duties of the RP SPA are summarized as follows:

- Ensuring that this AzSPU Radiation Contingency Plan is reviewed, and updated as required, on a regular basis.
- Maintaining proper communication flow between the AzSPU RPA (UK based) and the Site Radiation Protection Supervisors (RPSs).
- Processing radiation incident notifications (prior to submission by AzSPU Permitting and Regulatory Affairs / AzSPU Central Environmental Team).
- Supporting investigations into radiation related issues.
- Providing advice on source recovery, clean-up and waste disposal following an incident (in consultation with the AzSPU RPA).

#### **AzSPU Radiation Protection Adviser / Qualified Expert (RPA)**

AzSPU retains by contract and appointment a RPA to provide the AzSPU with expert advice on radiation safety and compliance matters. The RPA reports to the AzSPU Safety & Compliance Manager and works directly with the AzSPU RP SPA. Contact details for the RPA are provided in Appendix B.

In terms of this procedure, the RPA will be consulted with respect to the following:

- Development and update of contingency plans.
- Investigations into doses in excess of the investigation level.
- Investigation of incidents.
- Advice on source recovery, clean-up, waste disposal following an incident.

#### **Site Manager / Offshore Installation Manager (OIM)**

The Site Manager / OIM is accountable for all aspects of radiation safety on any site under his control or authority. In particular he is accountable for ensuring that:

- Suitable persons have been appointed to supervise work with ionising radiation i.e. Radiation Protection Supervisors (RPSs) and that a Site Register of RPSs is kept.
- All persons involved in work with ionising radiation have received adequate training and details of their training are recorded.
- Suitable and sufficient radiation monitoring instruments are provided.
- Prior to any work with ionising radiation, a risk assessment is carried out.
- Suitable and sufficient personal protective equipment is provided, as and when necessary, for the prevention of contamination of personnel.

### **Radiation Protection Supervisors (RPSs)**

The specific duties of the RPS, with respect to this Plan, are to:

- Ensure that all work with ionising radiation is subject to a radiation risk assessment.
- Implement this Contingency Plan for incidents or accidents involving work with ionising radiation.
- To carry out radiation surveys, visual surveys, and leakage tests in the event of an incident (providing it is safe to do so).
- Instigate personnel searches (with assistance from site security) and site searches (using a suitable meter) in the event of a lost radioactive source.
- Cordon off areas, as required, following an incident.
- Conduct contamination screening of personnel leaving the incident area (in collaboration with the ERT).
- Manage the handling and storage of contaminated items resulting from the incident (following consultation with the AzSPU RP SPA).
- In the event of overexposure, for calculating likely personnel doses and notifying the RPA if doses are exceeded.
- Maintain Site Radiation Records.

### **AzSPU Permitting and Regulatory Affairs / AzSPU Central Environmental Team**

The AzSPU Permitting and Regulatory Affairs Team is responsible for notifying SOCAR, Ministry of Emergency Situations (MES), Ministry of Health (MoH), Ministry of Industry and Energy, Cabinet of Ministers, and heads of local executive authorities (onshore incidents only), in the event of a radiation incident.

The AzSPU Central Environmental Team is responsible for notifying the Ministry of Ecology and Natural Resources (MENR) in the event of a radiation incident.

Notifications must be carried out in a timely manner, and in the case of a downhole stuck radioactive source in accordance with the time limitations in Figure 1.

## Drilling, Completion & Intervention (DC&I) Team

In the event of a downhole stuck radioactive source DC&I are responsible for:

- Completing the verbal notification incident form (Appendix C), in consultation with the well logging contractor.
- Providing written formal notification of decision to abandon source (based on information provided by well logging contractor) if attempts to free stuck radioactive source unsuccessful.
- Preparing 'Close-out Letter' on completion of source abandonment and well sidetrack.
- Submitting above documents to the AzSPU RP SPA in accordance with the time limitations in Figure 1.

## Workers

All workers are responsible for the safety of themselves and others who may be affected by their actions or inactions. In particular, all workers are required to:

- Follow any applicable procedures or local rules relating to radiation protection or safety.
- Use monitoring devices and personal protective equipment and clothing provided.
- Refrain from any actions that will cause unnecessary exposure of themselves or others.
- Accept information, instruction and training on radiation protection and safety that will enable them to carry out their work in accordance with this plan, and other radiation procedures.

In addition, female workers have the responsibility of informing management when they know, or suspect, that they are pregnant.

## Contractors

Contractors are required to have their own Emergency Response Plans within their radiation procedures and to have all equipment on site to allow for retrieval of sources.

Contractor ERPs will be aligned with the requirements of this AzSPU Radiation Contingency Plan.

## Available Resources

BP and Contractors have the following human, material & procedural resources in case of radiation incidents:

- AzSPU Radiation Protection Single Point Accountability (SPA).
- Site Radiation Protection Supervisors (RPSs).
- Contractor Radiation Protection Officers (RPOs).
- AzSPU Radiation Protection Adviser / Qualified Expert (Tracerco).
- Emergency Response Team.
- Incident Management Team.

- AzSPU and contractor radiation emergency equipment.
- Asset medic and sick bay offshore, ISOS clinics onshore.
- Procedures and manuals referenced in Section 6 of this procedure.

In cases of severe exposure to radiation, offshore personnel will be evacuated to onshore-based ISOS clinic in accordance with AzSPU Offshore Emergency Medical Evacuation Procedure ([AzSPU-HSSE-DOC-00085-2](#)).

## 5. CONTINGENCY PLANS

The following reasonably foreseeable incidents involving radioactive materials have been identified:

- Nucleonic device related incidents, which include:
  - Fire, explosion, or mechanical impact resulting in loss or damage to shielding, or leakage of radioactive material.
  - Loss, or theft, of source.
  - Overexposure to personnel.
- Well logging related incidents, including source abandonment.
- Site radiography related incidents, including stuck source.

### 5.1 CONTINGENCY PLANS FOR INCIDENTS INVOLVING RADIATION

The presence of radioactive material should not prevent life saving and other critical actions. Life saving actions near a high activity source are not likely to lead to doses in excess of the 200 mSv limit for radiation emergencies and will not cause severe health effects. It should be remembered that hazards other than radiation may be present and may represent a greater health risk.

In instances where lifesaving and fire-fighting are required, each facility will refer to its asset-specific Emergency Response Plan. If an incident escalates to a Tier 2 or Tier 3 response the relevant country Incident Management Team will provide support, as detailed in the AzSPU Incident Management System Manual ([AzSPU-HSSE-DOC-00107-2](#)).

Any incident involving a radioactive source must be investigated in accordance with the AzSPU Incident Reporting and Investigation Procedure ([AzSPU-HSSE-DOC-00054-2](#)).

### 5.2. NUCLEONIC DEVICE RELATED INCIDENTS

#### 5.2.1 General Principles

- Follow standard safety procedures.
- The person identifying the radiation incident has to evacuate the immediate area and warn others to do the same.
- The Central Control Room organises muster of all on-shift personnel to a safe area and informs all other personnel to remain in a safe area until further notice.



- In instances of catastrophic damage, the risk of significant exposure due to inhalation of aerosols is small, but inhalation of smoke should be avoided and respiratory protection worn if available. If respiratory protection equipment is not available the mouth and nose should be covered with a handkerchief, or something similar.
- Time spent being exposed to radiation should be minimized, where practicable.
- Distance between yourself and the source of radiation should be maximized, where practicable.
- Local shielding such as steel structures can be used to reduce your exposure, if practicable.
- Do not touch or pick up anything that might be a radioactive source, or anything that might be contaminated. Keep hands away from the face.
- Do not enter an area where the dose rate is greater than 100 mSv/h, except for life saving actions (in case of life saving, limit the time spent in the area of >100 mSv/h to no more than 30 minutes).
- All personnel who have been directly or indirectly involved in an incident, where there has been a risk of contamination, shall be monitored.
- ERT personnel wearing breathing apparatus can safely enter a contaminated area, but any contaminated PPE shall be removed prior to leaving the outer area.
- Contaminated waste from response actions, such as water used for decontamination, should not represent a health hazard, but in order to reduce later clean up costs as well as anxiety among the work force, reasonable efforts should be taken to minimise the spread of contamination, provided this does not delay other response actions.
- Once emergency operations have ended, other activities (source recovery, clean-up, waste disposal etc.) will follow guidance from the RPA and the relevant authorities (through the AzSPU Radiation Protection SPA).
- A report will be prepared by the RPS and retained in the Site Radiation Records.

#### 5.2.2 Loss or Damage to Shielding

In the event of fire, explosion, or mechanical impact affecting a nucleonic device (or the vessel on which a device is fitted), loss of shielding should be assumed with the potential for radiation exposure.

In the event of a catastrophic incident, complete loss of shielding could result in the source capsule being accessible. In addition, the source may be projected some distance away from its original location.

##### **Initial Actions:**

- Inform the Site Manager / OIM, Central Control Room and site RPS.
- The site RPS will obtain a suitable dose rate meter and switch it on before approaching the incident area. The background reading will be noted, which should normally be zero.
- Provided it is safe to do so, the site RPS will carry out a radiation survey around the device and vessel.
- If dose rates no higher than normal are measured around the vessel, or nucleonic device, then a visual inspection of the device will be carried out by the site RPS.

- If there appears to be no damage to the outside of the device then a leakage test will be carried out by the site RPS (see Appendix J of the AzSPU Procedure for Management of Radioactive Materials and Radiation Generators ([AzSPU-HSSE-DOC-00058-2](#))).
- If no leakage is detected then no further action is required, unless internal damage to the device is suspected, in which case the supplier will be contacted by the site RPS for further advice.
- If dose rates above background are measured (in an area that is not already a Controlled Area) this indicates a probable loss of shielding.
- A cordon will immediately be set up at 10m radius in all directions around the device by the site RPS, or a member of the ERT as appropriate - if necessary, the cordon will be expanded to any area where the dose rate is 100  $\mu\text{Sv/h}$ . Only the ERT will be allowed access within the cordon.
- Anyone leaving the incident area will be screened for any gross contamination by the site RPS, or a member of the ERT as appropriate, using a dose rate meter. In the unlikely event that anyone is found to be contaminated, that person will be isolated at the edge of the inner cordon and decontamination procedures applied, as outlined in Section 5.2.3.
- If there is obvious damage to the housing of a nucleonic device then leakage of radioactive material must be suspected and the steps in Section 5.2.3 implemented.
- Once emergency operations have ended, clean-up and waste disposal will follow guidance from the RPA and the relevant authorities (through the AzSPU Radiation Protection SPA).

### 5.2.3 Leakage of Radioactive material

#### Initial Actions:

- Inform the Installation Manager / OIM, Central Control Room and site RPS.
- Contamination monitoring will be carried out by the site RPS to determine the extent of the spread of contamination.
- The spread of contamination will be minimised by the RPS marking and restricting access to the contaminated area.
- The spread of contamination, particularly on shoes or clothing of persons leaving the affected area, should be prevented.
- All persons who have been present in areas of contamination will be monitored for contamination by the site RPS. In the unlikely event that anyone is found to be contaminated, or if monitoring cannot be carried out immediately, persons will be isolated at the edge of the inner cordon. They will remove outer clothes and leave these at the edge of the cordon, if it is safe to do so. They will then shower.
- Contaminated parts of the body will be washed thoroughly but gently until either monitoring shows that contamination will not be significantly reduced further by this method, or there is a risk of roughening or breaking the skin.
- Any contaminated wound, however trivial, shall be irrigated with water or saline solution, care being taken to limit any spread of contamination to or from other parts of the skin.

- Any items that are found to be contaminated (e.g. gloves, coveralls, boots) shall be removed, taking care not to spread any contamination, sealed in bags and left in or near the affected area.
- Bags of contaminated items will be placed in a secure (lockable) container by the site RPS. The container will be marked with a radiation warning sign and the words “Danger Radioactive Contamination”. In the event of high dose rates, a barrier will be set up around the container.
- Once emergency operations have ended, clean-up and waste disposal will follow guidance from the RPA and the relevant authorities (through the AzSPU Radiation Protection SPA).

#### 5.2.4 Loss or Theft of Source

The aim is to prevent lost or stolen radioactive sources entering the public domain by deliberate or accidental removal from the site.

##### **Initial Actions:**

- If a fixed source becomes lost, or unaccounted for, the site RPS, Installation Manager / OIM, Central Control Room, and Site Security must be informed.
- All personnel leaving the site will be searched and monitored by Site Security and the site RPS, or an authorized person who has received appropriate training.
- The site RPS will immediately start a search for the source using a suitable meter. It should be noted that it may not be possible to detect a source that is in a shielded container.
- If the source is found and it is in its shielded container then a visual inspection of the container will be carried out by the site RPS to determine whether there is any damage.
- If the container is damaged then the steps for loss or damage to shielding will be applied, see Section 5.2.2.
- If there is no damage then the container will be placed in temporary storage until it can be safely reinstalled by the appropriate contractor personnel.

If the source is not found, source accounting records will be examined to ascertain when and where the source was last used. The AzSPU Radiation Protection SPA and the RPA must be notified as soon as possible.

#### 5.2.5 Overexposure

In the event that overexposure of an individual is suspected, the site RPS will carry out an investigation to determine the likely dose that has been received.

The RPS will calculate the potential dose based on the maximum dose rate that the individual was exposed to and the duration of the exposure.

In the case of inhalation / ingestion of radioactive material the RPS will make an estimate of the likely quantity of material involved and contact the RPA for further assistance.

If the investigation shows that the individual has exceeded a dose limit, or it cannot be proved otherwise, then the RPA shall be notified immediately.

#### 5.2.6 Waste

In the event that contamination occurs, it will be necessary to collect all contaminated items / materials and dispose of them through a national radioactive waste management facility. If such a facility does not exist, or is not willing to take the contaminated material, it may then be necessary for AzSPU to store the material until a suitable disposal route can be identified. This will involve discussions with the relevant Azerbaijani authorities in order to get their input.

As stated above, clean-up operations will follow guidance from the RPA, through the AzSPU Radiation Protection SPA.

### 5.3. INSTRUCTIONS FOR CONTRACTOR INCIDENTS INVOLVING IONISING RADIATION

Contractors will have Emergency Response Plans within their radiation procedures / site specific instructions to deal with reasonably foreseeable incidents or accidents. All equipment to allow for retrieval of sources will be available on site, in accordance with the Plan.

Notification of an incident involving work with ionising radiation is initially processed by the AzSPU Radiation Protection SPA and submitted to the authorities by the appropriate AzSPU department, see Section 5.4.

#### 5.3.1 Well Logging Incidents – Source Abandonment

This section provides guidance in the event of a radioactive source becoming stuck in a well. The basic scenario being described is for a well with a stuck wireline logging tool, but would also be applicable for a Logging Whilst Drilling (LWD) tool.

All ‘reasonable’ efforts must be made to recover the source, while ensuring that the source integrity is not affected by the recovery operations.

If the source is recovered, a leakage test will be carried out. If the source is found to be leaking the Contractor’s Emergency Response Plans for a leaking source will be put into effect. The authorities will be informed in accordance with Section 5.4.

If it is not possible to recover the source, the authorities will be informed in accordance with the process outlined in Section 5.4 and Figure 1.

The following information will be recorded by the contractor: details of the well location, the source location within the well, the source type, source serial number, and source activity (current or at a reference date).

In addition, the contractor will detail the steps taken to recover the source and the mitigating factors that prevent recovery. These factors may include:

- Practical difficulties of recovering the tool and/or source without potentially causing damage to the source.
- The additional costs that will be incurred in further fishing operations, compared with the value of the recovered tool.

- Location of production zones.

The proposal may also need to include a justification that abandoning the source is the best environmental option with reference to the following influencing factors:

- The environmental impact associated with further recovery operations.
- Possibility of drilling into or damaging the source during the recovery operation.
- The low risk of sources coming to surface or leaking radioactivity into the environment. Supporting evidence will include a description of the position of the source within the logging tool and the location of the tool within the well bore and also the current leak test certificate, the original source document verifying the source ISO Classification and/or the Special Form Certificate.

Finally, the mitigations that will be taken to prevent damage to the source as a result of further drilling operations will be described.

The mitigations will be:

- The radioactive sources will be immobilised and sealed in place with a cement plug.
- A drill-bit deflector will be placed on top of the cement to deflect any future drilling unless the sources are not accessible to future drilling operations. If a sidetrack is proposed, then include a specific statement of how collision with the old hole will be avoided. If proposing to sidetrack, include a plot of the proposed sidetrack indicating the minimum separation of the new well bore from the source.
- A plaque 17 cm square and 3 mm thick, manufactured of steel, brass, bronze or monel, will be placed on the surface of the well or well head, unless this is not practical, to warn of the presence of the abandoned source in the well. The plaque will contain the following details:
  - The word "Caution";
  - The ISO radiation trefoil symbol;
  - The date the source was abandoned;
  - The name of the well owner or well operator;
  - The well name and identification number;
  - Source type(s) and activity;
  - Depth of the source(s) and depth to the top of the plug;
  - An appropriate warning such as "do not re-enter this well".

There will be a clear statement of the hazard/risk level once mitigations are in place.

The report will be included in the Site Radiation Records.

If the source is abandoned the site RPS is responsible for:

- Closing out the entry in the Site Mobile Source Register, see Appendix N of the AzSPU Procedure for Management of Radioactive Materials and Radiation Generators ([AzSPU-HSSE-DOC-00058-2](#)).
- Entering the details in the site inaccessible source register, see Appendix O of the AzSPU Procedure for Management of Radioactive Materials and Radiation Generators ([AzSPU-HSSE-DOC-00058-2](#)).

### 5.3.2 Incidents involving Radiography Sources

All equipment will be on site to allow retrieval of a stuck radiography source in accordance with the Contractor's Emergency Response Plans. This will include bags of lead shot, or lead sheets to be used as shielding. If the source is exposed and cannot be retracted immediately then shielding material will be applied. This should reduce the dose rate significantly, but it may still be necessary to extend the Controlled Area barriers to the 7.5  $\mu\text{Sv/h}$  contour.

If a site / facility moves to "Hazard" status during radiography, the source will be wound back or replaced into its container and/or its shutter closed, the container locked, the key removed and retained by the operator prior to the involved personnel proceeding to muster. This action must be communicated to the Site Manager / OIM via the Central Control Room in order to advise emergency response teams that any radiation barriers in place can be disregarded.

## 5.4. NOTIFICATION TO THE AUTHORITIES

Any notification of an incident involving a radiation source shall be initially processed by the AzSPU Radiation Protection SPA and submitted to the authorities by the appropriate AzSPU department - AzSPU Permitting & Regulatory Affairs and AzSPU Central Environmental Team.

The authorities that are notified in the event of a radiation incident are:

- State Oil Company of the Azerbaijan Republic (SOCAR);
- Ministry of Emergency Situations (MES);
- Ministry of Ecology and Natural Resources (MENR);
- Ministry of Health (MoH);
- Cabinet of Ministers of Azerbaijan Republic;
- Ministry of Industry and Energy;
- Heads of local executive authorities.

For AzSPU owned radiation sources, a formal notification shall be sent to the authorities listed above by the AzSPU specifying:

- (i) Circumstances of the emergency / incident.
- (ii) First steps taken to remedy the situation and the results of said efforts.
- (iii) Measures taken to bring the emergency situation under control and protect against loss of life, harm to natural resources and the environment, and loss of / damage to property.

For contractor owned sources on BP controlled / operated facilities, a joint formal notification will be issued by AzSPU and the contractor (submitted to the authorities by AzSPU). This will contain the same information as specified above. With respect to downhole radioactive source abandonment, pertinent information will also be included from the report compiled by the contractor (see Section 5.3.1).

For contractor owned sources on contractor facilities but within the PSA Contract Areas (e.g. on drilling rigs), a high level notification will be issued by AzSPU with the contractor's detailed report attached to it.

Further details regarding this process will be included within the AzSPU Health & Safety External Reporting Procedure (currently in preparation).

#### 5.4.1 Downhole Stuck Radioactive Source Notification Process

Details of the notification process for a downhole stuck radioactive source are provided in Figure 1.

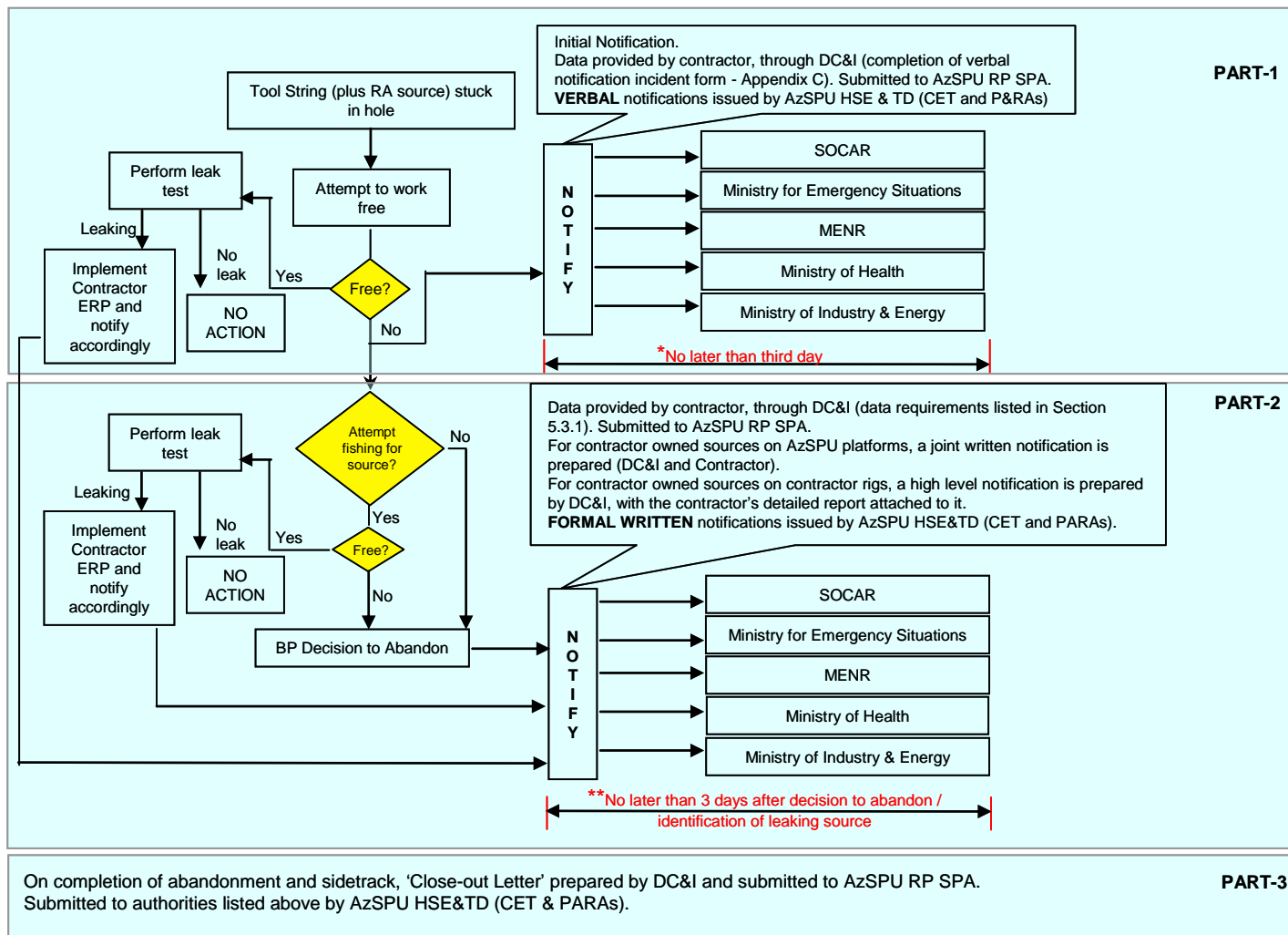
In summary, if it is not possible to free the stuck string by normal drilling methods, an initial verbal notification will be sent to the authorities informing them of the issue, along with plans for freeing the bottom hole assembly. In order to ensure that consistent and accurate information is communicated, the verbal notification incident form in Appendix C is completed by DC&I.

Following this, attempts will be made to recover the source by fishing (application of tools, equipment and techniques to remove items from the wellbore). If this is unsuccessful, a formal written notification of the decision to abandon the source will be prepared by DC&I containing the data requirements listed in Section 5.3.1.

On completion of abandonment and sidetrack, a final 'Close-out Letter' will be prepared by DC&I and submitted to the authorities.



Figure 1: Downhole Radioactive Source Abandonment Notification Flowchart



\* DC&I to provide data within 2 days of source being stuck. Verbal notification within 1 day of provision of required information.

\*\* DC&I to provide data within 1 day of decision to abandon / id of leaking source. Written notification within 2 day of provision of required information (time allowed for translation).





## 6. KEY DOCUMENTS/TOOLS/REFERENCES

This document shall, where appropriate, be used in conjunction with of the following procedures and plans:

Document Number	Title of Procedure
<a href="#">AzSPU-HSSE-DOC-00058-2</a>	Procedure for Management of Radioactive Materials and Radiation Generators
<a href="#">AzSPU-HSSE-DOC-00097-2</a>	AzSPU Procedure for the Management of NORM
<a href="#">AzSPU-HSSE-DOC-00115-2</a>	AzSPU Procedure for Transportation of Radioactive Materials.
<a href="#">AzSPU-HSSE-DOC-00083-2</a>	AzSPU Procedure for The Import / Export of Radioactive Materials and Sources of Ionising Radiation
<a href="#">AzSPU-HSSE-DOC-00054-2</a>	AzSPU Incident Reporting and Investigation Procedure
<a href="#">AzSPU-HSSE-DOC-000107-2</a>	AzSPU Incident Management System Manual
<a href="#">AzSPU-HSSE-DOC-00085-2</a>	Offshore Emergency Medical Evacuation Procedure

## Revision/Review Log

Revision Date	Authority	Custodian	Revision Details
16 September, 2009	Yuliy Zaytsev (Safety & Compliance Manager)	Idrak Nazarov (HSE MS Team Leader)	Initial Issue.
15 October 2009	Yuliy Zaytsev (Safety & Compliance Manager)	Idrak Nazarov (HSE MS Team Leader)	Figure 1 and Section 5.4.1 added to the procedure, in consultation with DC&I.
04 October 2010	Yuliy Zaytsev (Safety & Compliance Manager)	John Elliott(Senior HSE Advisor)	Contact details of key personnel were updated <b>Section 2 Definitions</b> has been updated with new abbreviations <b>Section 5 Contingency plans</b> first bullet point has been reworded <b>Sub-paragraph 5.2.2 Loss or Damage to Shielding</b> has been updated <b>Sub-paragraph 5.2.6 Waste</b> New paragraph has been added in order to bring clarity on contaminated waste encountered decision making tree process <b>Appendix A – AzSPU Inventory of Radioactive Sources</b> data may be collected from relevant

			department upon request
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## **APPENDIX A – AZSPU INVENTORY OF RADIOACTIVE SOURCES**

The 'Inventory Report of BP Exploration (Caspian Sea) Ltd Radioactive Sources' is available on request from AzSPU Permitting and Regulatory Affairs.

## APPENDIX B – RADIATION PROTECTION ADVISER (RPA) CONTACT DETAILS

AzSPU has appointed Tracerco Radiation Protection Advisory Services as their Radiation Protection Adviser (RPA) (which is equivalent to the term Qualified Expert used by the IAEA and the EC).

The first point of contact is Donald Urquhart, who is based in the Tracerco office in Aberdeen, UK. However, all of the RPAs who are based either in the Aberdeen office or the Tracerco Billingham office are able to advise on any issues affecting BP.

*Contact details:*

Aberdeen RPAs	Email	Telephone
Donald Urquhart	<a href="mailto:donald.urquhart@matthey.com">donald.urquhart@matthey.com</a>	+44(0) 01224 650658 (direct) +44(0)7875384225 (mobile)
Graham Wales	<a href="mailto:graham.wales@matthey.com">graham.wales@matthey.com</a>	+44(0) 1224 650652 (direct) +44(0)7764836669 (mobile)
Bill Good	<a href="mailto:bill.good@matthey.com">bill.good@matthey.com</a>	+44 (0) 1224 650653 (direct) +44(0)7801662320 (mobile)

Billingham RPAs	Email	Telephone
Andrew Smith	<a href="mailto:andrew.smith@matthey.com">andrew.smith@matthey.com</a>	+44(0)1642375462 (direct) +44(0)7764290567 (mobile)
Nick Hutchison	<a href="mailto:nick.hutchinson@matthey.com">nick.hutchinson@matthey.com</a>	+44(0)1642375463 (direct) +44(0)7919091388 (mobile)
Paul Warren	<a href="mailto:paul.warren@matthey.com">paul.warren@matthey.com</a>	+44(0)1642375461 (direct) +44(0)7889828968 (mobile)

*Emergency Contact Details:*

If none of the above can be contacted outside normal hours then call +44(0)1642 375500 and ask to speak to the duty RPA.

*Postal Addresses*

Aberdeen Office	Billingham Office
Tracerco Chattan Mews Office 18 Chattan Place Aberdeen AB10 6RD United Kingdom	Tracerco Technology Centre, Pavilion 10, The Moat, Belasis Hall Technology Park Billingham, Cleveland, TS23 4AZ, United Kingdom

**APPENDIX C – VERBAL INCIDENT NOTIFICATION FORM****INCIDENT NOTIFICATION:**

<b>Document:</b>			
<b>Incident date and time:</b>			
<b>Description:</b>			
<b>Location:</b>			
<b>Mitigation measures:</b>			
<b>Actions planned:</b>			
<b>Incident Review (Y/N):</b>			
<b>Company contact:</b>		To be filled in by Central HSSE	
<b>Title</b>	<b>Name</b>	<b>Signature</b>	
PU/Asset Manager			
Central HSSE Managers			
Legal Advisor			
HSE&TD VP or delegate			
<b>Amendments/additional information provided:</b>			
<b>Date &amp; Time</b>	<b>Name/Position of Notifier</b>	<b>Who notified</b>	<b>Comments</b>
	To be filled in by Central HSSE	To be filled in by Central HSSE	