



AzSPU Respiratory Protection Programme

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Section 1. Purpose and Scope

1.1 Purpose

The Respiratory Protection Program assures that employees of BP Exploration Caspian Sea Ltd., Azerbaijan Strategic Performance Unit (AzSPU) and its contractors use respirators safely, effectively and in accordance with this policy.

1.2 Scope

This program addresses the use of air purifying and supplied air respirators by all employees at all AzSPU-controlled worksites in Azerbaijan, Georgia, and Turkey. *Contract* workers using respirators on AzSPU-controlled worksites will be enrolled in their company's Respiratory Protection Program.

It is the goal of AzSPU to minimize worker exposures to potentially hazardous airborne substances. The Company's primary objective is to reduce exposure potential whenever feasible through elimination, substitution, engineering or administrative controls. Where these controls are not feasible, or while they are being instituted, appropriate respirators shall be used to protect the health of the employee.

All respirator use will be in accordance with policy set forth in this Program. In situations where occupational exposure limits are not exceeded, good industrial hygiene practice or worker request may suggest that respirators be worn for additional comfort or safety. In such situations, respirators must be used in accordance with the included policy for voluntary use of respirators. Workers may use disposable dust masks voluntarily for avoidance of nuisance dusts in non-hazardous atmospheres, without enrollment in the AzSPU Respiratory Protection Program and without fit testing, training, or medical approval.

Section 2. Responsibilities

2.1 Respiratory Program Administrator

The AzSPU Central HSSE Team industrial hygienist is the Respiratory Program Administrator, has the overall responsibility for development and administration of the program, and shall ensure the following key elements are implemented at AzSPU worksites:

- 2.1.1 Establish and maintain a written program and associated procedures governing the selection and use of respirators, and review the program at least every three years.
- 2.1.2 Assure that program elements delegated to others are completed as called for by the program.
- 2.1.3 Determine purchase specifications and standards for all respiratory protection equipment, including compressor units used to supply breathing air.

- 2.1.4 Assess exposures in AzSPU industrial worksites to determine respiratory protection requirements.
- 2.1.5 Coordinate respirator program evaluation with field HSE and Health Advisors as necessary. The evaluation process shall determine whether provisions of this program are being implemented and shall assess worker views of the effectiveness of the program.

2.2 AzSPU Industrial Hygienists

- 2.2.1. Evaluate exposure complaints relating to the use or misuse of respiratory protective equipment.
- 2.2.2. Coordinate with Health Team and site medics or PU Health Advisors to assure that all AzSPU and contractor employees assigned to wear respirators at AzSPU controlled work sites have been medically approved.
- 2.2.3 Assure health risk assessments are performed, of various job tasks to determine the appropriate type of respirator for the task.
- 2.2.4 Coordinate with site H&S and/or medics to assure inspection of worksites and oversee major maintenance operations to assure that respirator use is appropriate for the hazards present and is in accordance with the Respiratory Protection Program.

2.3 Health Team Manager

The Health Team Manager ensures the following key elements are implemented:

- 2.3.1 Health Team maintains an Occupational Health Database listing workers enrolled in the AzSPU Respiratory Protection Program. The database contains all records pertaining to required respirator medical approval, fit testing and training. The AzSPU Health Team Members track respiratory program enrollees on the Occupational Health Database. They notify workers when they are due for medical approval, fit testing and training and schedule appointments in the clinic.
- 2.3.2 Medical qualifications are assessed for persons assigned to job tasks where respiratory protection is used. Occupational health physicians shall medically approve or disapprove an employee's ability to wear a respirator. Additional follow-up assessment where recommended will be determined by Health team Occupational Health Advisor. The assessment may include a physical examination, covering a respirator medical evaluation questionnaire, pulmonary function testing, electrocardiogram, chest X-ray or any other test deemed necessary by the Occupational Health physician.

- 2.3.3 Notify the affected employee, employee's supervisor, and Human Resources when an employee cannot medically qualify to wear respiratory protective equipment.
- 2.3.4 Perform fit tests and conduct training for enrollees on a scheduled basis, and update records in the Occupational Health Database.

2.4 Site Managers and Supervisors

Site managers and supervisors maintain ultimate responsibility for the safety and health of their employees. They take the following actions or ensure that their delegates perform the actions:

- 2.4.1 Maintain a stock of respirators and supplies as approved by the Industrial Hygienists.
- 2.4.2 Ensure that respiratory protection equipment is issued only to workers who can demonstrate fit test approval for the specific model and size of respirator to be issued.
- 2.4.3 Ensure medical certification of respirator assignees prior to the use of respiratory protective equipment and annually thereafter.
- 2.4.4 Ensure initial and annual respirator training and fit-test of respirator assignees
- 2.4.5 Ensure that the medical evaluation and approval is renewed annually for respirator assignees
- 2.4.6 Ensure that respirator assignees meet facial hair requirements in section 3.6 of this program when using respirators.
- 2.4.7 Request an Industrial hygiene evaluation when needed for tasks involving respirator usage.
- 2.4.8 Ensure that respirator users clean, inspect and maintain their respirators according to the **Respirator Cleaning Procedure**
- 2.4.9 Inspect air-purifying respirators in their departments occasionally (based on usage) to assure that the equipment is being properly maintained.
- 2.4.10 Ensure that only skilled personnel trained in the use of breathing air systems provide, install, service and retrieve them. An HSE Advisor or Industrial Hygienist should inspect and approve the systems, as installed at the use site, before use.

2.5 Workers Assigned to Wear Respirators

Workers assigned to wear respirators are responsible for using respirators in accordance with their training and the instructions of their supervisor:

- 2.5.1 Complete annual requirements for medical approval (**AzSPU Fitness for task management programme: scope and Frequency**) for respirator use in accordance with this program.
- 2.5.2 Advise supervision or the Health Team medical personnel of any medical, physical, or psychological condition that would preclude use of a respirator.
- 2.5.3 Ensure that nothing is allowed to interfere with a proper respirator to skin seal. An enrolled employee with garment or hair, including stubble, mustache, sideburns, beard, low hair hairline, bangs that interferes with the skin to mask seal, or with chin hair that could interfere with the valves, shall not be permitted to wear a respirator. Workers assigned to wear respirators must be clean shaven in the entire sealing surface area and chin. Clean-shaven means no more than 24 hours beard growth. .
- 2.5.4 Follow all steps in the Respirator Usage Procedure.
- 2.5.5 Promptly report any malfunction or problem with the respirator to the supervisor.
- 2.5.6 Clean, sanitize, and properly store the respirator according to the **Respirator Cleaning Procedure** after each use.

2.6 Human Resources Manager

The Human Resources Manager is responsible for assisting field management with the processing of affected employees who cannot pass the medical evaluation and/or cannot be fitted with a required respirator.

Section 3. Program Elements

3.1 Respirator Use Criteria

Use of respiratory protective equipment, whether the respirators are required or voluntary, will require adherence to all the prescribed requirements in this program. The only exception is voluntary use of disposable dust respirators for comfort, not to protect against hazards.

- 3.1.1 Company Industrial Hygienists will advise supervisors regarding conditions under which company policy or good industrial hygiene practice requires respirators.
- 3.1.2 Employees may also use respiratory protection at their discretion (see paragraph 3.2 voluntary use, below) when not specifically required or may use a respirator with a higher level of protection than that specified, for example supplied air instead of a negative pressure air purifying respirator.

3.2 Voluntary Use

- 3.2.1. Workers may use respirators in cases where they are not necessarily required by the respiratory hazards. For example, workers may choose to wear a respirator to avoid an annoying smell or to avoid low level nuisance dust even though the “exposures” do not approach occupational exposure limits.
- 3.2.2. Voluntary use of air-purifying or atmosphere-supplying respirators in non-hazardous environments requires full conformance with the AzSPU Respiratory Protection Program requirements. The only exception is voluntary use of disposable dust respirators for comfort, not to protect against hazards.
- 3.2.2. Supervisors may issue disposable dust masks to workers without proof of fit testing or other requirements of the Respiratory Protection Program.
- 3.2.3. Supervisors will post the **Voluntary Use of Respirator Notice** for users of disposable dust masks where disposable dust masks are issued. It is important that users understand that disposable dust masks are not intended for protection from hazardous air concentrations of dusts, vapors, gasses, or fumes, or from oxygen-deficient atmospheres.

3.3 Medical Approval (**AzSPU Fitness for task management programme: scope and Frequency**)

Workers shall not be assigned to tasks requiring the use of a respirator unless it has been determined that they are physically able to perform the work and use the equipment.

- 3.3.1. All employees assigned to wear respiratory protection for toxic exposures, regardless of frequency of use, must have medical approval.
- 3.3.2. The AzSPU Health Team Members track respirator program enrollees on the Occupational Health Database. They notify workers when they are due for medical approval, fit testing and training and schedule appointments in the clinic.
- 3.3.3. Medical approval for workers enrolled in the AzSPU Respirator Program to be provided by nominated medical providers. Medical approval is reviewed annually.
- 3.3.4. The Industrial Hygienists provide the workplace survey and exposure data pertinent to the worker’s job.
- 3.3.5. Company Occupational Health Advisor will determine if additional specific tests beyond the standard scope are required for medical approval for individual enrollees.
- 3.3.6. Medical approval shall be obtained before conducting a respirator fit test and respirator issue.

- 3.3.7. Medical approval is not required for voluntary use of disposable dust masks in non-hazardous environments.

3.4 Training

All employees enrolled in the Respiratory Protection Program must complete respirator training. Respirator training for AzSPU employees is available through VTA and will be supplemented by site medic during fit testing. This training is repeated at least annually and includes at a minimum, the following elements specific to the type of respirator used by the worker. Additional site-specific refresher training may be conducted in individual work groups.

The training will include:

- 3.4.1 Why the respirator is necessary. It describes types of hazardous atmospheres and their health effects on worker health.
- 3.4.2 Function of the respirator and the limitations and capabilities of the respirator.
- 3.4.3 How to use the respirator effectively in emergencies, including situations where the respirator malfunctions.
- 3.4.4 How to inspect, put on, and remove, use, and check the seals of the respirator.
- 3.4.5 How to maintain and store the respirator.
- 3.4.6 When to change cartridges on air purifying respirators.
- 3.4.7 How to recognize medical signs and symptoms that may limit or prevent the effective use of the respirator.
- 3.4.8 The general requirements of this program.

3.5 Fit-Testing

Medical providers will provide fit testing for AzSPU Respirator Program enrollees in the site medical clinic (where available) or at a contract central health clinic when the site does not have a medical clinic.

- 3.5.1 Respirator users must be fit-tested before being issued a respirator and annually thereafter. Any usage requires fit testing. The fit-test will be conducted after the employee has been medically certified to use respiratory protective equipment. Workers may use disposable dust masks for nuisance dust avoidance, in non-hazardous atmospheres, without being fit tested.
- 3.5.2 Quantitative fit testing using the Porta-count system is the method of choice. However, users of negative pressure respirators may be qualitatively fit tested by the Occupational physician using the Irritant

Fume or the Isoamyl Acetate Protocols. See the Industrial Hygienist for fit testing instructions.

- 3.5.3 Individuals with interfering facial hair (see section 3.6) or lack of medical approval will not be fit-tested.
- 3.5.4 Employees will be refit-tested ahead of schedule if conditions that might affect the integrity of the respirator to skin seal occurs for example, change in manufacturer and/or respirator type, weight gain/loss of more than 10 Kg, dentures, scars or facial deformities, reconstructive or cosmetic surgery, etc. **The Respirator Fit Testing Procedure** provides quantitative fit test procedures.

3.6 Facial Hair Considerations

- 3.6.1 To ensure a proper fit, nothing is allowed to interfere with seal of the respirator to the skin of the face (facepiece to face seal), nor with the valves.
- 3.6.2 Workers with garments or hair, including stubble, mustache, sideburns, beard, low hair hairline, bangs, which interferes with the skin to mask seal, or with chin hair that could interfere with the valves, shall not be permitted to wear a respirator.
- 3.6.3. Workers assigned to wear respirators must be clean shaven in the entire sealing surface area and chin. Clean-shaven means no more than 24 hours beard growth.

3.7 Contact Lenses and Full Face Piece Glasses Inserts

- 3.7.1 Workers may use contact lenses with respirator wear provided the individual has had successful experience wearing contact lenses. If the respirator used is a half facemask, contact lens users should consider whether dust conditions during the work might cause lens discomfort. Contact lenses do not provide protection from chemical or physical agents. They must wear eye protection meeting the ANSI Z87 standard and appropriate for anticipated hazards. If the respirator used is a full-face atmosphere-supplied respirator, contact lens users should consider whether airflow might cause eye drying and lens discomfort.

3.8 Issuing Respirators

- 3.8.1. AzSPU respiratory protection program enrollees are issued approved air purifying respirators and supplies by the site supply officer according to the fit test record provided by the Health Team.
- 3.8.2. Atmosphere-supplying respirators are not issued to individuals, except that site Response Team leaders may issue SCBA respirator headpieces to individuals on the Response Team.

3.9 Inspection

All respirators of any kind need inspection before use.

- 3.9.1 All users must inspect their respirator prior to donning. The **Respirator Usage Procedure** includes a guide for inspection of respirators.
- 3.9.2 Each emergency use SCBA must be inspected monthly. SCBAs are maintained in accordance with manufacturers' recommendations.

3.10 Usage

The **Respirator Usage Procedure** provides a Users' Guide for donning and wearing respirators. General rules for respirator use include the following:

- 3.10.1 Workers shall only use respiratory protective equipment specified by the HSE Department Industrial Hygienists.
- 3.10.2 Workers shall only use respirators as issued. No modifications or substitutions to equipment are permitted.
- 3.10.3 The worker shall perform face piece seal checks each time prior to donning a negative pressure respirator.
- 3.10.4 If, while using respiratory protection, the worker detects odor from the work process, experiences difficulty breathing or suspects other leakage the worker shall leave the area immediately. Re-entry shall not be permitted until the problem has been solved by replacing cartridges, restoring airflow, or by other means, as necessary.
- 3.10.5 When respirators are temporarily removed during breaks in work operations, removal shall be done away from the work area in order to prevent worker exposure and to keep the inside of the respirator face piece clean. Respirators shall be protected from contamination prior to redonning.

3.10.6 Absent objective cartridge change out data and IH specific direction to the contrary, fresh sorbent cartridges shall be installed at the start of the work shift (or at the start of the first task requiring a respirator that day) and that cartridges not be used for more than the 12 hour work shift. If a worker believes that there was a possible breakthrough before 12 hours, the worker should change the cartridges.

Exception—workers using Hg cartridges may use them until the ELSI color band changes color.

3.11 Cleaning and Disinfecting

Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to maintain them in a sanitary condition. Respirators used by more than one employee and respirators maintained for emergency use, shall be cleaned and disinfected by users after each use in accordance with the **Respirator Cleaning and Disinfecting Procedure**.

3.12 Storage

Area supervisors must provide appropriate respirator storage facilities at the work site or base shop. Clean respirators must be stored in sealed plastic bags, away from sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. The storage area must be clean and sanitary. Respirators must be stored in such a way as to prevent crushing or deformation of the face piece. Designated storage locations for respirators must be established in or near work areas. Alternative storage in personal lockers is permitted.

3.13 Repair and Maintenance

Proper respirator maintenance is essential for reliable protection. Some general rules are:

3.13.1 Users may disassemble, make minor repairs and reassemble air-purifying respirators using the instruction sheet with the respirator.

3.13.2 Repair of respirators shall be accomplished with the appropriate parts designated by the manufacturer.

3.13.3 No attempt shall be made to replace components or to make adjustments or repairs beyond the manufacturer's recommendations.

3.13.4 Users shall request assistance from the HSE Advisor or Industrial Hygienist for problems and non-routine repairs.

3.13.5 Only trained and appropriately certified Respiratory Technicians may clean, maintain and repair supplied air respirators and SCBAs.

3.14 Breathing Air Systems

Breathing air systems are critical to the health of workers completing tasks in potentially hazardous atmospheres. Each site using breathing air systems shall develop its own site-specific Breathing Air Procedure detailing use of the equipment they have at their facility. The systems must be installed and operated according to the site-specific Breathing Air Procedure.

Key policy requirements are as follows:

- 3.14.1 Breathing air for atmosphere-supplying respirator systems shall be provided only from breathing air compressors and shall meet the Grade D specification in accordance with ANSI Standard Z86.1-1973, Commodity Specifications for Air.
- 3.14.2 Site HSE Advisors assure that the supplied air is only Grade D air. They control the sources, monitor the supply systems and sample air from supply systems quarterly for laboratory analysis in accordance with the Breathing Air Procedure, and keep monitoring records.
- 3.14.3 All breathing air systems for BP-controlled worksites shall be provided, installed, serviced, and retrieved in accordance with the site-specific Breathing Air Procedure.

Exceptions: Specialty contractors with their own complete systems may use their systems for their projects. HSE Advisors must approve the entire installation through the permitting process.
- 3.14.4 In confined space work, in atmospheres immediately dangerous to life or health (IDLH) supplied air respirators shall be equipped with escape bottles, regardless of backup air outside the vessel. Back-up bottles are not required for abrasive blasting in a confined space that has ventilation sufficient to prevent atmospheric conditions that are immediately dangerous to life or health.
- 3.14.5 For all airline respirator system use, an attendant shall be positioned where he/she can monitor the supplied air system, react to alarms, and remove workers from the work area in the case of a malfunction.
- 3.14.6 Trained specialist technicians must be used to perform all routine preventive maintenance on all AzSPU breathing air compressors.

3.15 Program Evaluation

The Program Administrator and Industrial Hygienist shall review the Respiratory Protection Program every three years. The evaluation process shall determine

whether provisions of this program are being implemented and shall assess worker views of the effectiveness of the program.

Section 5. Acronyms Used

- APR: Air Purifying Respirator
- ANSI: American National Standards Institute
- AzSPU: Azerbaijan Strategic Performance Unit of BP Exploration Caspian Sea, Ltd.
- IDLH: Immediately dangerous to life or health. (Reference: US National Institute for Occupational Safety and Health (NIOSH) Pocket Guide to Chemical Exposures.)
- SCBA: Self Contained Breathing Apparatus

Attachments

- Cleaning and Disinfecting Procedure
- Respirator Usage Procedure
- Respiratory Fit Test Procedure
- AzSPU Fitness for Task Management, Scope and Frequency
- Voluntary Use of Respirators Notice
- Recommended types of respirators used for various jobs



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Revision Log

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17/04/2008	Almaz Agazade	Hijran Jafarova	First issue
01/07/2009	Almaz Agazade	Hijran Jafarova	Annual Review – no changes to the content
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