COREGLOBAL

SAP EHS - Occupational Health Management

Contents

Occupational Health Management: Business Process Procedure

1 Purpose

1.1 Scenario Overview

The Occupational Health Management scenario consists of two parts:

1) Occupational Health Surveillance:

To ascertain and maintain the health of mining employees, medical tests and procedures are carried out by professional medical personnel, on all employees that is exposed to risks in the working environment.

Through its legal and social responsibility the mine has to follow *zero-harm-to-the-workforce* approach and this must be realized through preventative biological monitoring and examination of an employee's health. Examinations may occur planned or unscheduled; the frequency of planned examinations is determined by legislative regulations or other requirements. It is important to understand that health surveillance **must** start from the moment the person enters the organization to ensure a comprehensive understanding of the baseline, initial and historic exposure of the individual.

Health and Safety acts stipulate that an employee must undergo an initial examination when starting on the job, a periodical examination (annual surveillance) and exit examination when terminating service. For each protocol and examination type a frequency can be set for example for the annual medical surveillance the frequency would be every 12 months.

Special Features of Occupational Health

What makes Occupational Health unique from any other product available for the occupational health sector is the integration with mySAP Human Capital Management and SAP Environment, Health and Safety's Industrial Hygiene and Safety. The close link to these two components makes it possible to streamline and optimize many organizational processes. Furthermore it enables the difference of disciplines in Health and Safety to work together to establish and maintain holistic Occupational Health and Safety programs.

The medical protocol (set of examinations) could be automatically proposed to the medical personnel in the following ways:
- Workplace exposure based on risk assessments and homogeneous exposure groups
- Job specific tasks of employee
- Employees' demographic information for lifestyle monitoring (age)

The medical protocol could be manually adjusted based on:

- Employees' history (for example: previous exposure to Asbestos) and to built a medical surveillance record at current employee, which includes the baseline.
- Employees medical conditions (for example: high blood pressure)

Occupational Health is integrated into the mySAP solutions as follows:

- In *Time Management,* you can display absences for each person if the absences for your employees have been maintained. This enables you to schedule appointments effectively.

- In *Industrial Hygiene and Safety*, the central object is the work area, where all the processes and data for industrial hygiene and safety are mapped. The work area can be linked to the Organizational Management objects 'Position' and 'Exposure group'. This establishes the link from Occupational Health to *Industrial Hygiene and Safety*.

- *Personnel Administration* supplies Occupational Health with personal data, such as name, address, date of birth, personnel number, and so on. For example the date of birth used for age related protocol proposal. Thereby only employees that fall within specific age range would be proposed for an age related protocol for example Asbestos.

Organizational Management includes an object (info type) called *exposure group.* An exposure group is defined as a group of persons who are all exposed to homogenous agents for example silica in dust. Via the exposure group (Driller) the agent *Respirable Crystalline Silica* can be linked to organizational units, such as a position or job. The system uses this assignment to find out which persons are exposed to respirable crystalline silica. The Health surveillance protocol for Silica's biological monitoring is then proposed for these persons, if their exposure justifies doing so. Health surveillance protocols can also be determined from specific tasks assigned to the person's position (or job), such as drilling whereby definition of the task, the person is exposed to high noise levels above 105dB every shift. This assignment identifies persons that need to undergo additional hearing monitoring apart from the annual medical surveillance. Exposure to noise according to hygiene measurements can also be used for exposure related protocol triggering. The following graphics show an example of the assignment of agents and tasks to different objects in Organizational Management and how this information could be used for the person specific proposal of health surveillance protocols.
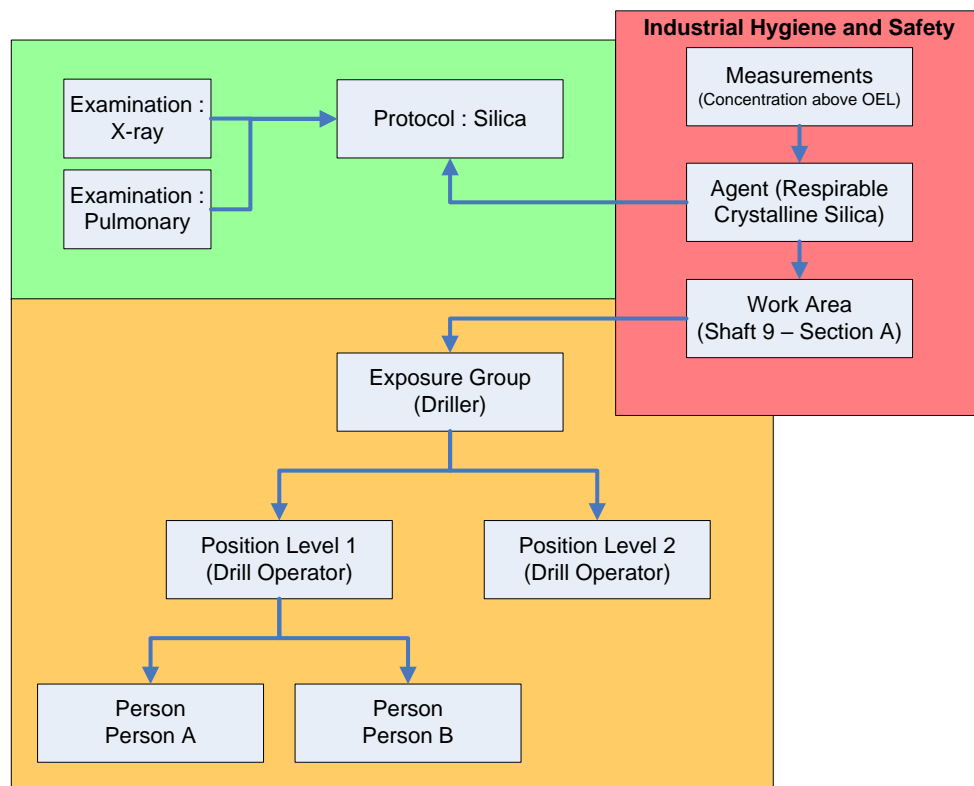
Graphic A: Proposal based on silica exposure
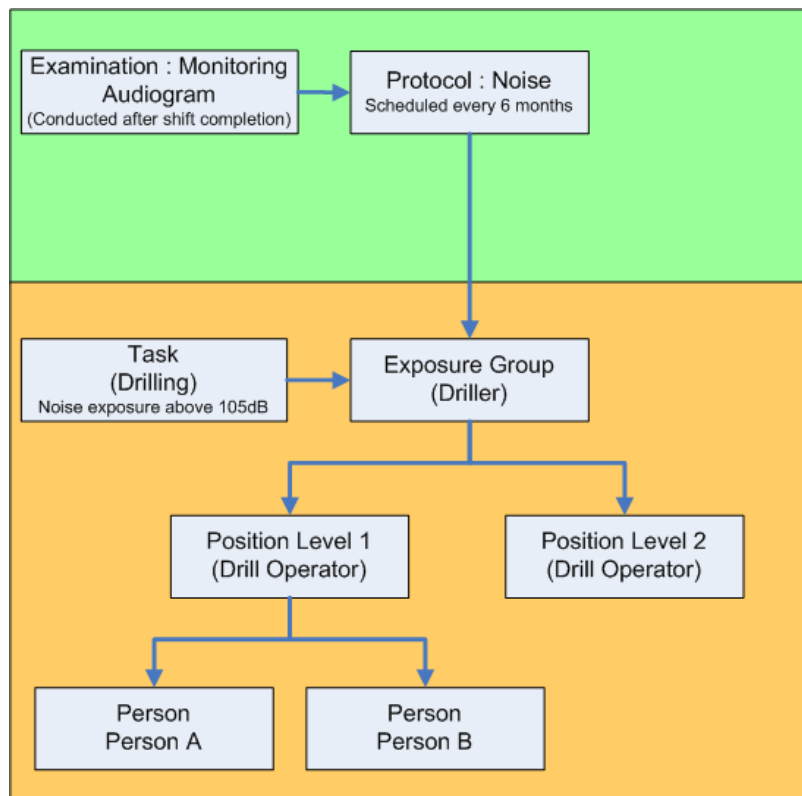
Graphic B: Proposal based on task for Audiogram surveillance

Models have the advantage that every change in the organizational assignment of the employee and/or the respective change in the workplace (exposure profile) directly influence to the proposal of health surveillance protocols and additionally a complete person specific exposure history could be built automatically.

If a proposal list is run in the Demo system and all protocol is assigned, the next demo has no data to show for this transaction.

2) Injury/Illness management:

The employer has the responsibility to compensate their employees for disablement caused by occupational injuries or diseases sustained or contracted by employees in the course of their employment, or for death resulting from such injuries or diseases. The reporting of statistical injury and occupational illness information during a mine's lifecycle is required for a number of legislative organizations. It is critical that this information is on-time, in the correct format and complete.

This is made possible by capturing injury and occupational illness information in the injury/illness log.

Integration

To use employee data such as name and personnel number in the injury/illness log, you need access to *Personnel Administration*.

Data on external persons and medical facilities for follow-up treatment is entered and edited in the cross-application function *Business Partners*.

Data transfer to the incident/accident log

The data entered in the injury/illness log can be transferred to the incident/accident log in *Industrial Hygiene and Safety* scenario. The type of injury/illness log entry controls the data transfer. You specify the injury/illness log entries that are proposed for transfer to the incident/accident log.

After the information has been entered, reports are available for legislative reporting requirements

- With standard functionality and customization additional tab pages can be added to the injury/illness log. Due to the uniqueness of the information that a mine might deem important and additional, it has been excluded from the scenario.
- Status management is a standard functionality available in the injury/illness log. Each Mining company may decide to interpret the statuses differently and therefore utilize it in various means, it has been excluded from the business process.

2 Process flow

2.1 Occupational Health Surveillance
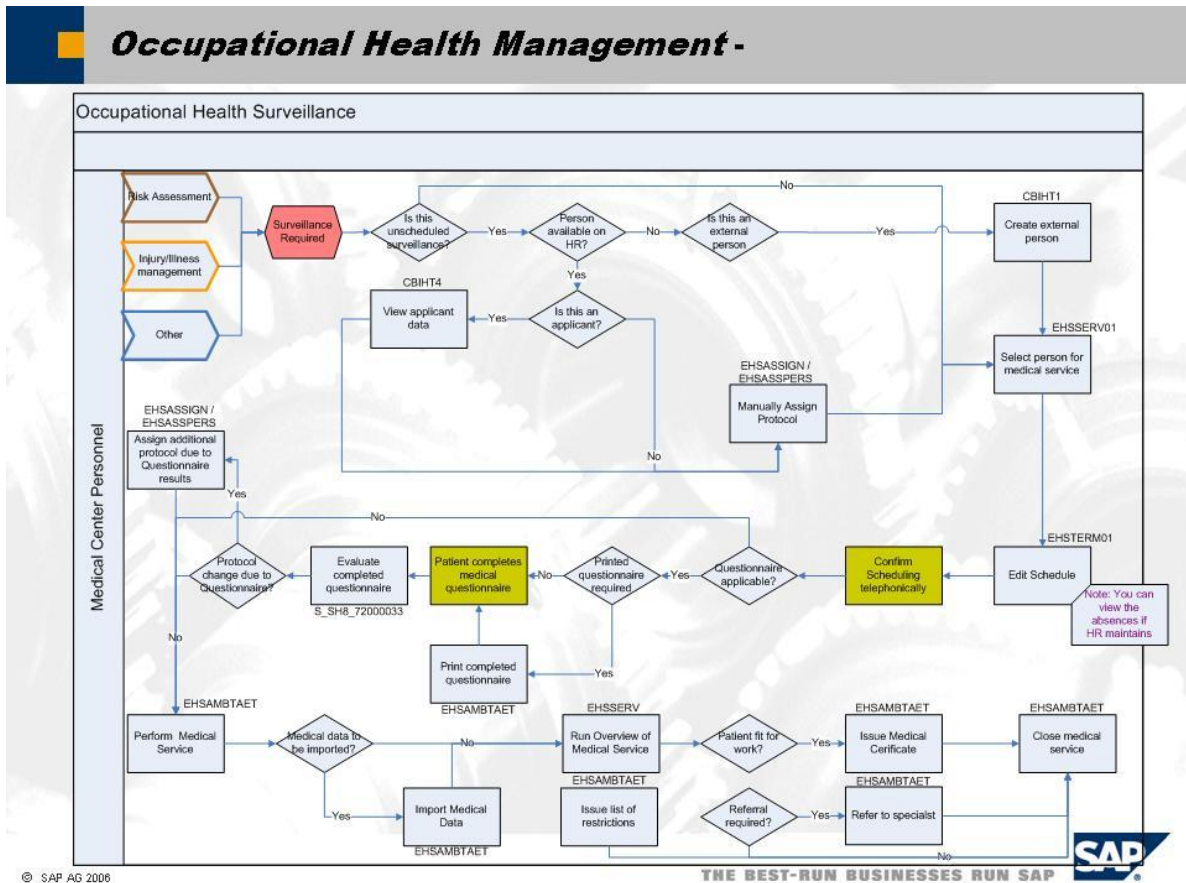
Surveillance can be required during a risk assessment when a risk has been identified in a particular work area and certain protocols need to be assigned to a person. If an injury has occurred a medical service is opened for the injured person.

Other triggers can be legislative changes, new operations in a mine, etc.

Mining companies have to follow a *zero-harm-to-the-workforce* approach, which must be realized through regular examination and testing of employees to ascertain and maintain their health. These examinations are carried out by an occupational health professional, on all employees who is exposed to risks in the working environment.

The reporting of statistical injury and occupational illness information is made possible by capturing the information in the injury/illness log.

2.1.1 Trigger: Surveillance required

Surveillance can be required during a risk assessment when a risk has been identified in a particular work area and certain protocols need to be assigned to a person. If an injury has occurred a medical service is opened for the injured person.

Other triggers can be legislative changes, new operations in a mine and so on.

2.1.2 Creating External Person (Applicant)

Use

External person is created within EH&S, independent from Personnel Administration

Create applicants with this transaction if HR does not maintain applicant data in Human Capital Management Process

IMPORTANT: Use internal number assignment to create an external person

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	CBIHT4
IMG Menu	

2. On the *Display Aplicant Master Data* screen, choose *Appl. Master data →Initial Data Entry*.

3. On the *Initial entry of basic data* screen, make the following entries:

Field name	Value	Comment
Per.area	BP01	
Subarea	0001	
Ap.group	1	
Appl.range	2 Salaried Employee	
Title	Mr	
F. name	Tom	
Last name	Applicant	
Birth dt	05.04.1970	
National.	AU Australia	
PC/City	12345/Mining City	
Unsol.AG	4 Development	

4. Choose *Save+Add.data*. If there's an information window pops up, choose *continue*.

5. On the Edit additional data screen, choose *Save*.

6. Choose *Back*.

Result

Applicant has been maintained.

2.1.3   Assigning Health Center

Use

Health centers are assigned to persons to enable scheduling as well as reporting functionalities. All persons must be assigned to Health Centers.

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	EHSPERSHC1
SAP Menu	*Logistics → Environment Health and Safety → Occupational Health → Health Centre Assignment → Assign Person*

2. Enter the following data:

Field name	Description	User action and values	Note
Personal Number		Use the number, which were created in the previous step	
Health center		1	
Valid from		Current Date	

3. Choose *Execute.*

4. On the *Assign Person to Health Center* screen, choose the selected person.

5. Choose *Assignment.*

6. In dialog box, choose *Yes.*

7. The new period of the Health Care for this person is displayed in the screen.

8. Choose *Exit.*

Result

The health center has been assigned to the external person.

2.1.4   Viewing Applicant Data

Use

The purpose of this activity is to view the data of an applicant created in Human Capital Management process.

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	CBIHT4
SAP Menu	*Logistics → Environment Health and Safety → Occupational Health → Basic Data → Addresses → Display Applicant Master Data*

2. In *Application No* field, enter the applicant number from the step above(For example 1)*.*

3. Choose *Enter.* The name and basic data of this person is displayed.

4. Choose *Short Profile.*

5. On the new screen, the short profile of this person is displayed.

6. Choose *Back.*

Result

The applicant data has been viewed.

2.1.5   Manually Assigning Protocol's to a Person

Use

This is done for unscheduled (unplanned) surveillance for example pre-employment, exit medicals and ad-hoc testing such as drug and alcohol testing.

Employee, applicant or external person is selected for medical service.

Here all personal data is displayed to open a medical service for this person.

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	EHSH_D_PCP
SAP Menu	*Logistics → Environment Health and Safety → Occupational Health → Schedule Planning → Planning Cockpit*

2. Double click the search criteria for *Applicant.*

3. On the pop-up window, choose *Enter.*

4. On the next screen to select person, for example *00000001 Walt Applicant.*

5. Choose *Continue*

6. Person appears in *List of Persons.*

7. Choose *Add to planning list* or double click *person.*

8. Select record of person in planning list and choose *Assign Health Surveillance protocol.*

9. In dialog box, maintain the following data:

Field name	Description	User action and values	Note
Protocol Category		Y01	
Protocol no.		BP0	
Exam type		1	
Next due		Current date	

10. Choose *Enter* (Add Health Surveillance Protocol of choose *F5*).

11. Do not leave the transaction and continue to next step.

Result

A protocol has been assigned to the person

2.1.6   Creating Medical Service

Use

After the protocol has been assigned to the person a medical service can be created for this person. A medical service is also created to enable scheduling of the person to take place.

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	EHSH_D_PCP
SAP Menu	*Logistics → Environment Health and Safety → Occupational Health → Schedule Planning → Planning Cockpit*

2. Choose person in planning list.

3. Choose *Open Medical Service.*

4. Choose *Save.*

5. Choose *Back,*

Result

Medical service is created for the person.

2.1.7   Confirming Appointment Telephonically

Use

The purpose of this activity is to confirm appointment with the person telephonically.

Procedure

This is a manually step.

Result

An appointment has been confirmed with the person telephonically.

2.1.8   Scheduling Medical Service and Printing Invitation & Questionnaire

Use

The Medical practice calendar is new functionality that is available in ERP2005 ECC6

Here absence data is displayed if this is maintained by HR.

Questionnaire or invitation can be printed from this screen.

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	EHSH_D_PCP
SAP Menu	*Logistics → Environment Health and Safety → Occupational Health → Schedule Planning → Planning Cockpit*

2. Double click the search criteria for *Applicant.*

3. On the pop-up window, choose *Enter.*

4. On the next screen to select person, for example *00000001 Walt Applicant.*

5. Choose *Continue.*

6. Person appears in *List of Persons.*

7. Choose *Add to planning list or* double click *person.*

8. Choose person record in planning list.

9. Choose *Open Medical service.*

10. Choose the service check box to choose it.

11. Choose *Medical Practice Calendar.*

12. Choose *cancel* when dialog box asks for the selection. (May be twice)

13. *On the Medical Practice Calendar screen, choose the person on the left.*

14. Double click the selected date & time, for example *Wednesday afternoon, 15:30.*

15. In dialog box, change the appointment Status to *1 Taking Place.*

16. Maintain the description, for example *Initial examination.*

17. Choose *Enter. (If a screen pops up and ask for address, ignore it).*

18. Choose *Back* or press *F3.*

19. Choose *Print Invitation/Questionnaire.*

20. Choose *Yes.*

21. Choose *print preview* to preview the Invitation/Questionnaire. (In printer field, can input *LOCL* for testing)

22. Choose *Back.*

Result

Medical service has been scheduled and the invitation and questionnaire have been printed out.

2.1.9   Person Completing Medical Questionnaire

Use

In this activity, the person manually completes questionnaire.

Procedure

This is a manually step.

Result

The person has completed the medical questionnaire manually.

2.1.10　Entering Questionnaire Responses

Use

Capturing results of the completed questionnaire in the system is part of one person's medical service.

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	EHSAMBTAET
SAP Menu	Logistics → Environment Health and Safety → Occupational Health → Medical Service → Edit Medical Service

2. In *Personal ID* field, enter *00000001.*

3. Choose *Applicant.*

　　　Or choose some employee for the further testing.

4. Choose *Enter.*

5. Choose the medical service, which wants to be performed.

6. Choose *Call Questionnaire* or choose *Shift+F6.*

7. On the new *Complete Questionnaire* screen, complete the questionnaire.

8. After completion, choose *Wrong Answers* to find out which answer is not correct.

9. Choose *Save.*

10. Choose *Enter.*

11. Choose *Close Questionnaire.*

12. Choose *Back.*

Result

Questionnaire responses have been entered.

2.1.11　Evaluating Completed Questionnaire

Use

The purpose of this activity is to evaluate the completed questionnaire.

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	S_SH8_72000033
SAP Menu	*Logistics → Environment Health and Safety → Occupational Health → Reporting → Utilities → Evaluate Completed Questionnaires*

2. Maintain the following data:

Field name	Description	User action and values	Note
Assignment cat		Health Surveillance Protocol	
Period		Current Month.	
Catalog		2 Mining Best Practices.	
Catalog group		1	

3. Choose *Assessment* or *F8.*

   Assign additional protocol due to Questionnaire results.

   Due to the evaluation of the completed questionnaire, additional protocols may be identified by the Health Professional that have to be included in the medical service.

Result

Completed questionnaire has been evaluated.

2.1.12   Overview of Medical Service

Use

The purpose of this activity is to run overview of medical service for list of services for a specific period.

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	EHSSERV
SAP Menu	*Logistics → Environment Health and Safety → Occupational Health → Medical Service → Overview of Medical Services*

2. On the *Edit Overview of Medical Service* screen, select button *Set Filter (F9). Set the following selection criteria:*

   ▪ Status – Examination Started

- Period – All

3. Choose *Continue (Enter)*

4. *Medical Service Overview List* is displayed by selection (filter) criteria.

5. Select a medical service and choose *Edit Medical Service* or double click *service.*

6. Choose Applicant (default) based on selection of person in list when the dialog box is displayed.

7. Choose *Enter.*

8. Review the details of the medical services.

Use filter settings to select period for medical services to be displayed.

Use EHSSERV30 - Display Daily Lists transaction to display medical services that needs to be conducted on a daily basis.

Result

Overview of medical service has been run.

2.1.13   Performing Medical Service

Use

The purpose of this activity is to perform medical service. The answer of the patient is entered into the system and saved for the medical service.

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	EHSSERV
SAP Menu	*Logistics → Environment Health hand Safety → Occupational Health → Medical Service → Overview of Medical Service*

2. On the Edit Overview of Medical Service screen, select button Set Filter (F9). Set the following selection criteria:

- Status – Examination Started

- Period – All

3. Choose *Continue (Enter).*

4. Medical Service Overview List is displayed by selection (filter) criteria.

5. Choose a medical service and choose Edit Medical Service or double click *service.*

6. Choose Applicant (default) based on selection of person in list when the dialog box is displayed.

7. Choose Enter.

   Before this step, the ICD10 catalog should already be installed in the system. If not, follow with the steps:

   Use T-code: EHSDIAGSL and on the screen, choose ICD10 in Catalog field.

   On menu select Diagnosis Table > Diagnosis Import

   On screen select Diagnosis Catalog 01

   Select upload template and choose ICD10_FINAL.txt on the DVD folder.

8. Select *Case History* Tab and complete the following:

Field name	Description	User action and values	Note
Case Hist. type	Family case history	003	
Catalog		Y1 – ICD10	
Diagnosis Code	Pneumoconiosis due to asbestos and other mineral fibres	J61	
Category		5	

9. Choose *Protocol / General Examination Tab.*

10. Service will display the type of examination to be performed based on the protocol assigned.

11. Select *Examination Tab.*

12. On *examination* tab, choose the examinations to be performed by double clicking on the examination *Blood Test.*

13. On test result tab maintain the following data:

Test description	Phys. Val	Unit	Value Ass	Status	Note
Haemoglobin	15	g/dL	Normal	Final result	
Erythrocytes	5	c/mcl	Normal	Final result	
Leukocytes	8	c/mcl	Normal	Final result	
Platelet	250	g/l	Normal	Final result	
G-GT	30	iu/l	Normal	Final result	

Test description	Phys. Val	Unit	Value Ass	Status	Note
Uric Acid	6	mg/dl	Normal	Final result	

14. Choose *Save.*

15. Choose *Back.*

16. On *examination* tab, choose the examinations to be performed by double clicking on the examination *X-ray.*

17. Choose the *Test Result Tab.*

18. Maintain the following data:

Test description	Phys. Val	Unit	Value Ass	Status	Note
Chest X-ray	Normal		Normal	Final result	

19. To link document to the examination select tab *Documents.*

20. Maintain the following data:

UD Txt Type	Sort	L	User Defined Text Document	Note
YOHXRAY			Test Document (OHD 0000000000000010000000002 000 00)	Document info record must exist before document can be linked

21. Choose *Save.*

22. Choose *Back.*

23. Close examination by entering the following data

Examination	Locked / Lock	Result Value Assignment	Date of Results	Note
Blood Test	Yes	Normal	Current Date	
X-ray	Yes	Normal	Current Date	

24. Close all the other examinations like last step.

25. Select the protocal in the *Protocol / General Examination Tab* and complete the following:

Field name	Description	User action and values	Note
Reservation		Fit	Person must be declared either Fit, Fir with Restrictions or Unfit to perform his / Her daily tasks

Field name	Description	User action and values	Note
Valid until			
Next Due Date			System will calculate based on the protocol frequencies maintained within the protocol
Next examination type			In real case there might be some more examinations needs to test.

26. After all information has been entered in the medical service it must be closed to enable printing of certificates, for example, Fitness Certificate, Medical Certificate List of Restrictions (Restriction must be maintained on the *Restrictions* Tab).

27. Select *Close Tab* and complete the following:

Field name	Description	User action and values	Note
Check		Complete	
Follow-up			
Sign-off Date		Current Date	
External			Select indicator if Physician performing the medical service is an external body
Physician		Choose the doctor by using F4	
Service Refused			
Person Informed		Yes	

28. To close medical service select menu path *Medical Service → Close (F7).* If all medical data is not completed the user will be prompted to complete this before service can be closed. (Closure can also be forced).

29. Go to the "Medical Service" Menu and select Print.

30. Choose *Medical Certificate* for Medical Service and click on the Enter icon to continue

31. In the Output device field enter locl and choose *Print Preview* to view document.

32. Go to the "Text" Menu and select Print.

The same steps can be repeated to print the list of restrictions if applicable.

Result

Medical service has been performed and documents attached.

2.2 Injury/Illness Management

Trigger: Injury occurs

From an incident / accident like an explosion, injuries can occur that needs to be reported.

Other triggers can be illnesses and not related to incidents or accidents.

2.2.1   Trigger: Injury occur

From an incident / accident like an explosion injuries can occur that needs to be reported

Other triggers can be illnesses not related to incidents or accidents.

2.2.2   Creating Injury/Illness Log

Use

The purpose of this activity is to create an injury/illness log because of process trigger.

Here list the key input of the log.

Purposes	Key Points
Choose Injury type	1) This is the classification of the injury 2) Legislative requirements for reporting of certain classifications will different for every country.
Enter Time of aid given	3) Enter time and date of aid given to injured person
Enter Plant	4) The entered plant when saving this injury/illness log will determine which work area is shown when F4 is used for the first time (plant field in the search criteria for work area is defaulted to saved plant in header information)

Set relevant injury indicators if applicable	5) Legislative requirements for reportable illnesses/injuries will different for every country.
Enter Persons affected, persons involved and save information	6) Enter Persons affected and persons involved 7) This information will be carried over to the incident/accident log if transfer is executed 8) After the log is saved, tab pages will appear in which further information is entered. 9) After the save action the header information cannot be changed (e.g. plant etc.)
Enter Treatment location information	10) Enter Treatment location information
Enter Aid given information	11) Indicate what type of aid was administered to the patient
Enter additional information	12) This is a **customer specific tab page** that can be created with standard EH&S functionality to enable the client to capture specific injury details with the use of free text or phrase functionality

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	CBIH72

2. If there's a popup window asks for the business partner, choose the number with Role External Company.

3. Choose *Create* or choose *Shift + F6* to go to the *create* screen.

4. On the *Edit Incident/Accident Log* screen, enter the following data and choose *Enter:*

Field name	Description	User action and values	Note
Entry Type		YWS	
Time Aid Given		Current date/time	
Plant		«Plant_BP01_ProdPlant»	
Roportable		X	
Person Group		A	
Person affected		00000004	
Time of event		1 hour before Current date/time	

5. Choose *Save.*

6. Note the Inj/Ill log number _____.

7. Choose *Aid/Follow-up Trtmt* Tab.

8. Enter the following data*:*

Field name	Description	User action and values	Note
Med Meas.		1	
Aid Type		YCR	
Follow-up Trtmt		YPR	
Planned Date		Current Date	
Actual date		Current Date	

9. Choose *Event* Tab.

10. In the *Work Area* field, enter *MINE1_BOXFRONT* or choose *F4* to choose one.

11. In the *Description* field, input *Gas Explosion.*

12. Choose *Injuries* Tab.

13. Enter the following data*:*

Field name	Description	User action and values	Note
Main Inj.		X	
Old Inj.			
Injury/Illness.	Amputation - Traumatic	CUST-BP-INJ-000004	
Body Part	Ear - Left	CUST-BP-BDP-000005	
Body part desc		At ear	

14. Choose *Treatment Location* Tab.

15. Enter the following data*:*

Field name	Description	User action and values	Note
Log entry loc. dsc		YMC	
To FA center	Ambulance	CUST-BP-MOT-000001	
To further treatment	Ambulance	CUST-BP-MOT-000001	

16. Choose *Create a medical service.*

17. Choose *Save.*

18. Recorded the Injury/Illness log number and the Medical Service number. _____

(lightbulb icon)

> If you are going to transfer from the Injury / Illness log – Do not enter the injured persons. They will be updated in this list when you do the transfer from The Injury / Illness Log.

Result

Injury/illness log has been created.

2.2.3 Transferring Details from Injury / Illness Log

Use

The purpose of this activity is to transfer details from Injury / Illness log. Capture person specific data for injured persons (if any).

If an Injury/Illness log relevant to this Incident has been logged in the system, it is not necessary to capture the data again, since it can be transferred to this Incident/.Accident Log.

If persons were injured but no information has been captured in the Injury/Illness Log, the information can be captured in the Incident/Accident Log.

Procedure

1. Access the activity using one of the following navigation options:

Transaction Code	CBIH89
SAP Menu	

2. Choose the log generated by the previous step.

3. Choose *Accept.*

4. Choose *Create new.*

5. Choose the Log entry type, for example *YHS.*

6. Choose *Start Data Transfer.*

7. Record the I/A Log Entry number. _____

(lightbulb icon)

> If persons were injured but no information has been captured in the Injury/Illness Log, the information can be captured in the Incident/Accident Log.

Result

Details have been transferred from the Injury/illness log.