

Volume 6

GPR Administration and Control Program Developer and Installation Guide

PREPARED FOR

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Import Control, The Ministry of Economy and
Foreign Trade

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UNDER USAID CONTRACT

263-C-00-96-00001-00

October 2000

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OVERVIEW

To operate as planned, the GOEIC Product Register will require a special **Executive Administrator**, responsible for administration and control of the Product Register. The Administrator will use the GPR Database information together with legislation and ministerial authority to create and maintain the list of imported products that merit special inspection treatment. This list has to be maintained and updated regularly and made available to the GOEIC network by being posted on the GPR Website. This guide contains instructions on how to install and use the Product Register Administration and Control Program—the program that will help the designated **Executive Administrator** to use the database to achieve the desired results of the Product Register concept.

On the comprehensive GPR CD-ROM, this guide is included in the folder labeled *4. GPR_Administration & Control Program Guide*. The folder has two subfolders, one containing this guide. The other is a special executable setup routine that will install this program. Instructions on how to use that setup routine are contained in this guide.

PURPOSE

To simplify and speed-up the inspection process of imported products, certain products/commodities that meet GOEIC qualification criteria will be labeled as “registered” products, thus will not be subject to physical/laboratory testing.

Such products will have a Manufacturer/Importer combination that maintained a good track record.

The product registration “status” can be invoked and revoked at any time according to the track record of Manufacturer/Importer combination of the product. Furthermore, the qualification criteria can be modified at anytime as GOEIC requirements evolve.

PROGRAM LOGIC AND DESIGN APPROACH

A two-phase commit is used to register a consignment item (product/commodity).

Phase one: “Qualifying” items

All items stored in the database are searched and matched against the qualification criteria set by the administrator. All matching items are flagged as “Qualified”.

Phase two: “Registering” items

A list is presented to the administrator with all qualified items in the database. The administrator then selects none, some, or all items and save them to the database. Only the selected items will be flagged as “Registered” and testing will be waived for them.

FEATURES

The administration program performs three main functions:

- 1- Set products qualification conditions.
- 2- Search the database for items that meet the qualifications conditions and flag them as "Qualified".
- 3- Enable the administrator to flag any of the pre-qualified items as "Registered".

* By flag we mean a value that is stored in the Consignment Details table for every line item.

The administration program affects the following functions in GOEIC web site:

- 1- After entering a consignment details, the items are automatically matched against “similar” items already stored in the database (from previous consignments).
- 2- The values of the "qualified" and "registered" flags are copied from “similar” items (if found).
- 3- When the user displays a list of items that are part of the consignment in preparation to perform the physical inspection and take samples for lab testing, the displayed list will display a message beside each line item if the "registered" flag is set. This message will indicate that "No Inspection required" for the item.

* By “similar” items we mean products and commodities that have been “flagged” as qualified and/or registered.

SECURITY

The Product Register Administration Program imposes some security concerns, because the program allows its user to set qualification criteria and register actual products to be exempted from future lab testing.

The design choice to implement this program as a standalone program—as opposed to an extension of GOEIC Product Register web site—reflects these concerns.

Installing the program as a standalone program on a single machine, effectively limits physical access to the power of this program without resorting to complex security schemas like firewalls or encryption.

The operating system basic security features—coupled with the physical isolation of the program—are sufficient to address all security concerns regarding accessing and using the program.

Three levels of security have been implemented:

1 - Physical location security

The administration program will be installed on a single workstation connected to GOEIC network and have access to GOEIC product register database server. Limiting physical access to the machine is of prime importance is easy to maintain through securing the location and monitoring staff access to this location.

2 - Operating system security

The workstation will run a secure operating system: Windows NT Workstation or Server, or Windows 2000. A limited number of users who are authorized by GOEIC to define, qualify and register products will be registered as users of the workstation. The authorized users will be given a user name and password that should be kept confidential at all times.

An administrator should regularly monitor usage logs to identify any suspicious activity or unauthorized access to the machine.

3 - Program and database imposed security

The administration program is closely tied to the database security mechanism. The authorized users must be registered first with the database server in order to gain access to the tables and stored procedures used by the program.

The program has only one entry point: the "Login" screen, which limits access to other parts of the program and eliminates any un-authorized, back-door access

This entry point allows authorized users to enter the following required authentication pieces of information:

- 1- User Name
- 2- User Password
- 3- Database name
- 4- Server Name

The login procedure then passes this information to the designated database for verification.

If the user is has a valid database server user id and a matching password and is registered as a valid database user, the user is then allowed to access the other parts of the program. Otherwise an error message is returned and the user is denied access to the program.

In addition, all login activities can be logged (using Windows NT administrative tools) so that an administrator can regularly monitor and track usage and login activities.

OPERATION AND INTERACTION CYCLE

Step	Operation	Who	When
1	Set the products qualification criteria	Administrator	Once at installation and every time the qualification criteria changes
2	All consignments line items will be matched against the new criteria. When a match is found, the line item will be flagged as "Qualified"	System	
3	Search and retrieve a list of qualified products	Administrator	Once after loading data into the system then periodically
4	Select products to be "Registered"	Administrator	Once after loading data into the system then periodically after reviewing Manufacturer/Importer record
5	Select products to be "Un-Registered"	Administrator	Once after loading data into the system then periodically after reviewing Manufacturer/Importer record
6	Match new consignments items (after saving the consignment details) with qualified and/or registered products in the database. When a match is found the consignment line item will be flagged as "Registered" or "Qualified"	System	Every time the "Save Consignment Details" button is clicked in the "Consignment Details" web page
7	Display and print a list of line items in a consignment to perform physical inspection	User (ports)	After entering and saving a consignment details and before taking samples for performing physical/lab testing
8	If any of the line items are "Registered", a message will appear beside the item instructing to waive inspection/testing	System	When the "View Consignment Details" button is clicked in the "Consignment Details" web page
9	Check the items in the consignment and inspect only those items which are not "Registered", i.e. do not have a "wavier" message beside the item details	User (ports)	After viewing and/or printing a list of the current consignment saved items, and preparing to take samples for lab testing

Notes:

- **Administrator:** Is the person responsible for using the program and qualifying, registering and un-registering products in GOEIC database.
- **System:** Refers to the functions automatically performed by the program, which doesn't require or allow any user intervention.
- **User (Ports):** The GOEIC web-site end-user who records details of consignments and products, and performs physical inspection, sampling and sending-to-Lab operations on product samples.

INTERFACE ELEMENTS

1. Logon to the program

Enter the user name, password and click “Login”.

- The User Name and Password are evaluated against SQL Server Login ID and password. If a match is found, the user will gain access to the program.
- GOEIC product register SQL Server installation name and database can be changed in case a different SQL server name is used or there is a need to move the data to another server.

“Login” button will proceed with authentication and login procedures.

“Close” button will close the current window and exit the program.



The screenshot shows a Windows-style window titled "Login" with a blue title bar. The main content area is titled "GOEIC Product Registration Program". It contains a form with four input fields and two buttons. The first field is labeled "User Name" and contains the text "Administrator". The second field is labeled "Password" and is empty. The third field is labeled "Database" and contains the text "regdata". The fourth field is labeled "Server" and contains the text "GOEIC". To the left of the "Server" field is a "Change" button. Below the form are two buttons: "Login" and "Close".

2. Main Control Screen

This is the control center of the program. The following functions are accessible: Qualification Conditions, Qualify Products, Register Qualified Products, and Exit

An extra feature is the ability to navigate to GOEIC web site by typing its Url and Clicking on “GOEIC Web site” button.

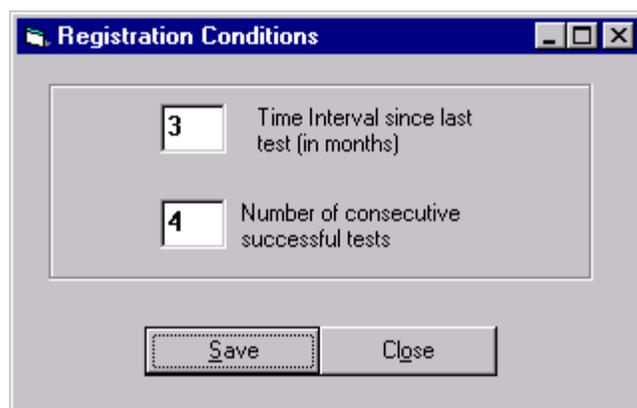
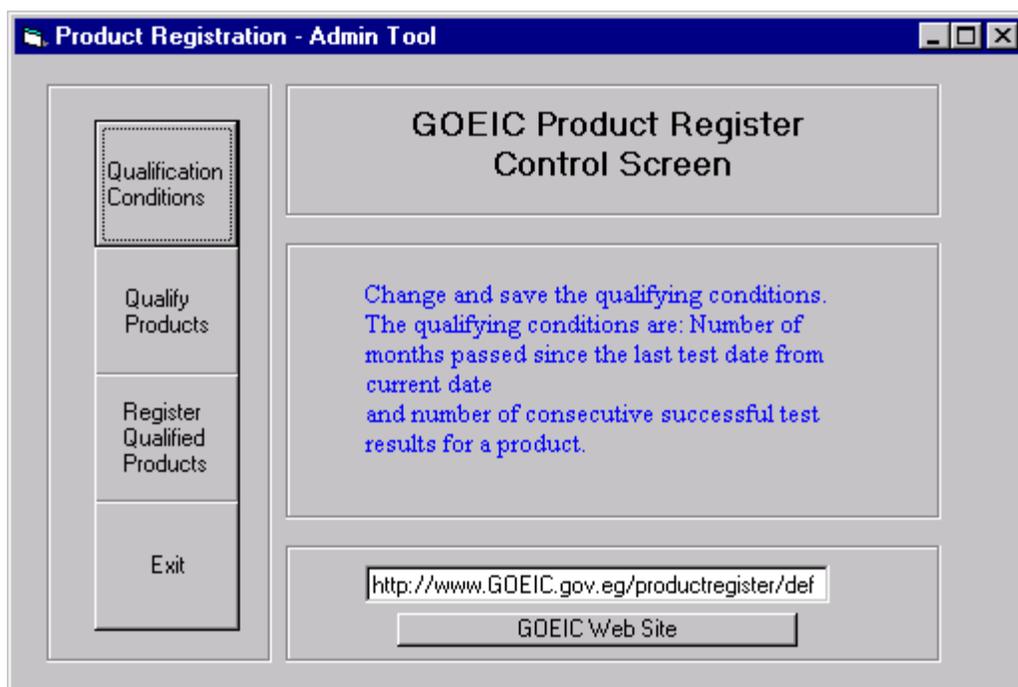
* Moving the mouse or the TAB-ing over the different buttons will display a help message on the function of each button.



3. Qualification Conditions

Set or change the product qualification conditions / criteria which consists of two variables:

- a) How many times a product successfully “Passed” a lab test (consecutive passes)
- b) How many months have passed since the “Last” lab test of a product.

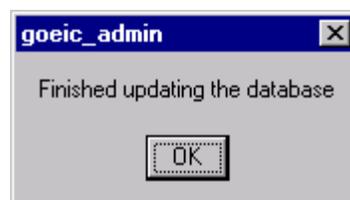
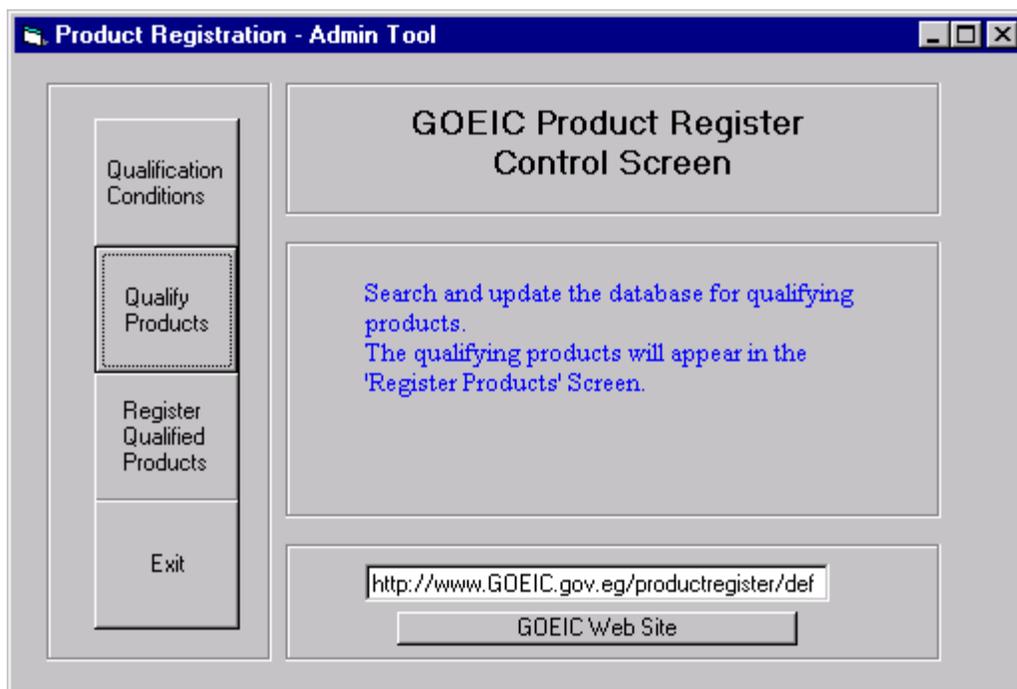


4. Qualify Products

Apply the qualification conditions to product records in SQL Server Product register database.

Products that have been stored in the database as part of Import consignments, and match the qualifying conditions, will be marked / flagged as “Qualified”.

A confirmation dialog box will appear after updating the database with qualification conditions.



5. Register Qualified Products

After qualifying the products recorded in the database, this option permits the user to mark / Flag one or many products that have already met the qualification conditions to be “Registered”.

“Registered” products will not be sampled or tested in labs.

The same option allows for “Un-registering” products that, for some reason, need to be removed from the product register and subjected to future sampling and testing in GOEIC labs.

Clicking on “Register Qualified Products” will open the following “Register / Un-register Products” screen



7. Exit

Terminate the current session and close the program.

Exit will not affect data modifications done throughout the session, because the changes are committed at the end of each step.



DATABASE ELEMENTS

The administration program uses five stored procedures to set and retrieve “Qualified” and “Registered” products from GOEIC Product Register database.

Stored procedures used by the program:

1) Procedure:

gp_get_qualified_products

Parameters:

None

Tables involved:

Condetail

Prod

Man

Vend

Country

Impor

Purpose:

Retrieve a list of qualified consignment items (records that meet GOEIC conditions for qualifying products to waive inspection. This procedure is called only from the Product Register Administration Visual basic application installed in GOEIC headquarters).

Code:

```
CREATE PROCEDURE gp_get_qualified_products
AS
SELECT DISTINCT condetail.condtid, condetail.prodid, condetail.manid,
prod.pname, prod.ptype, prod.pmodel,
condetail.registered, condetail.testdate,
man.mname, man.mcity, mc.englishcountry,
impor.impname, condetail.impcardno,
vend.vname, vend.vcity, vc.englishcountry
FROM condetail
JOIN prod ON prod.pid = condetail.prodid
JOIN man ON man.mid = condetail.manid
JOIN vend ON vend.vid = condetail.vendorid
```

```

JOIN country AS mc ON man.mctry = mc.countryid
JOIN country AS vc ON vend.vctry = vc.countryid
JOIN impor ON UPPER(impor.impcardno) = UPPER(condetail.impcardno)
WHERE condetail.qualified = 'YES' AND condetail.registered = 0
GO

```

2) Procedure:

gp_get_registered_products

Parameters:

None

Tables involved:

Condetail
 Prod
 Man
 Vend
 Country
 Impor

Purpose:

Retrieve a list of registered consignment items (records that meet GOEIC conditions for qualifying products to waive inspection and have been marked as “registered”. This procedure is called only from the Product Register Administration Visual basic application installed in GOEIC headquarters).

Code:

```

CREATE PROCEDURE gp_get_registered_products
AS
SELECT DISTINCT condetail.condtid, condetail.prodid, condetail.manid,
prod.pname, prod.ptype, prod.pmodel,
condetail.registered, condetail.testdate,
man.mname, man.mcity, mc.englishcountry,
impor.impname, condetail.impcardno,
vend.vname, vend.vcity, vc.englishcountry
FROM condetail
JOIN prod ON prod.pid = condetail.prodid
JOIN man ON man.mid = condetail.manid
JOIN vend ON vend.vid = condetail.vendorid
JOIN country AS mc ON man.mctry = mc.countryid
JOIN country AS vc ON vend.vctry = vc.countryid

```

```
JOIN impor ON UPPER(impor.impcardno) = UPPER(condetail.impcardno)
WHERE condetail.registered = 1
GO
```

3) Procedure:

gp_qualifyproduct

Parameters:

@pdate varchar(50)
@passes varchar(50)

Tables involved:

Condetail

Purpose:

Mark consignment detail product records as qualified according to GOEIC conditions for qualifying products, to waive inspection. This procedure is called only from the admin Visual basic application installed in GOEIC headquarters.

Code:

```
CREATE PROCEDURE gp_qualifyproduct
  @pdate varchar(50),
  @passes varchar(50)
AS
  DECLARE @lastdate datetime
  DECLARE @passnumber int
  SELECT @lastdate = DATEADD(mm, -CONVERT(int, @pdate), GETDATE())
  SELECT @passnumber = CONVERT(int, @passes)

  /* First clear all previously qualified products because the qualification
  criteria has changed */
  UPDATE condetail SET qualified = "

  DECLARE @prodid int
  DECLARE @tdate datetime
  /* Declare a cursor to get all "Imports" products stored in Condetail table where they were tested on
  or after the given test date, and order the cursor by Test date Asc (recent test dates first) */
  DECLARE products SCROLL CURSOR
  FOR SELECT DISTINCT prodid, testdate FROM condetail
  WHERE contype = 'I' AND testdate >= @lastdate ORDER BY testdate ASC
```

```

/* Open the cursor
OPEN products
FETCH FIRST FROM products INTO @prodid, @tdate

SELECT @prodid
WHILE (@@FETCH_STATUS = 0)
BEGIN
    /* passcounter will count how many "Passes" each product have. And compare it with the
    given number of passes to qualify */
    DECLARE @passcounter int
    DECLARE @passfailopen varchar(50)
    DECLARE @testdate datetime

    SELECT @passcounter = 0
    /* Declare another cursor to compare each product in the first cursor with the products in
    Condetail table */
    DECLARE product1 SCROLL CURSOR
    FOR SELECT passfailopen, testdate FROM condetail
    WHERE prodid = @prodid AND contype = 'I' ORDER BY testdate DESC

    OPEN product1

    FETCH NEXT FROM product1 INTO @passfailopen, @testdate
    SELECT @passfailopen, @testdate
    WHILE (@@FETCH_STATUS = 0)
    BEGIN
        /* If the last status is "Passed" then increment the pass counter for the current
        product*/
        IF UPPER(@passfailopen) = 'PASSED'
        BEGIN
            SELECT @passcounter = @passcounter + 1
            SELECT @passcounter
        END
        ELSE
        BEGIN
            /* If the last status is "Failed" or "Open" and the passcounter is less that the
            number of required passes to qualify the product then initialize the pass
            counter and break from the loop */
            IF @passcounter < @passnumber
            BEGIN
                BREAK
            END
        END
    END

```

```

                SELECT @passcounter = 0
            END
    FETCH NEXT FROM product1 INTO @passfailopen, @testdate
    END
    /* Start comparing the passcounter with the given number of required passes to qualify
    (passnumber).
    If the passcounter is greater or equal to passnumber then the product qualifies, otherwise it
    isn't qualified. I.e it hasn't accumulated the required number of consecutive passes */
    IF @passcounter >= @passnumber
    BEGIN
        UPDATE condetail SET qualified = 'YES', registered = 0
        WHERE prodid = @prodid
        SELECT "Qualified: " + CONVERT(varchar, @prodid)
    END
    ELSE
    BEGIN
        UPDATE condetail SET qualified = 'NO', registered = 0
        WHERE prodid = @prodid
        SELECT "UnQualified: " + CONVERT(varchar, @prodid)
    END
    CLOSE product1
    DEALLOCATE product1

    FETCH NEXT FROM products INTO @prodid, @tdate
    SELECT "Next product: " + CONVERT(varchar, @prodid)
    END

    CLOSE products
    DEALLOCATE products
    GO

```

4) Procedure:

gp_un_registerproduct

Parameters:

@prodid varchar(10),
 @manid varchar(10) ,
 @impcardno varchar(50) = NULL

Tables involved:

Condetail

Purpose:

Revoke the “Registered” status of a previously registered consignment detail product records so that they are removed from the registered products list. This procedure is called only from the admin Visual basic application installed in GOEIC headquarters. The Un-registered products remain “Qualified” though.

To Unqualify the products as well, use the gp_qualifyproduct procedure with a different criteria

Code:

```

CREATE PROCEDURE gp_un_registerproduct
@prodid varchar(10),
@manid varchar(10) ,
@impcardno varchar(50) = NULL

AS
BEGIN TRANSACTION
UPDATE condetail SET registered = 0, action = "", qualified = 'YES'
WHERE prodid = CONVERT(int, @prodid) AND manid = CONVERT(int, @manid)
AND impcardno = @impcardno

IF (@@ERROR <>0) GOTO on_error
COMMIT TRANSACTION
RETURN(0)

on_error:
ROLLBACK TRANSACTION
RETURN(1)
GO

```

5) Procedure:

gp_registerproduct

Parameters:

```

@prodid varchar(10)
@manid varchar(10)
@impcardno varchar(50) = NULL

```

Tables involved:

Condetail

Purpose:

Mark qualified consignment detail product records as registered according to GOEIC conditions for registering products for inspection waiving. This procedure is called only from the admin Visual basic application installed in GOEIC headquarters.

Code:

```
CREATE PROCEDURE gp_registerproduct
@prodid varchar(10),
@manid varchar(10) ,
@impcardno varchar(50) = NULL
AS
BEGIN TRANSACTION
UPDATE condetail SET registered = 1, qualified = ", action = 'No Inspection Required'
WHERE
prodid = CONVERT(int, @prodid) AND manid = CONVERT(int, @manid)
AND impcardno = @impcardno

IF (@@ERROR <>0) GOTO on_error
COMMIT TRANSACTION
RETURN(0)

on_error:
ROLLBACK TRANSACTION
RETURN(1)
GO
```

INSTALLATION AND MAINTENANCE

The Product Register Administration Program is packaged as a compiled EXE program, along with a Setup utility that guides the user through setup procedure using an installation wizard.

The program must be installed on Windows NT workstation/Server machine for security purposes.

The machine must be connected to GOEIC SQL Server that has the production GOEIC Product Register database, so that data modifications (qualifications and registration) done through the program will be reflected on GOEIC Product Register web site that uses the same database.

The program is self-contained and doesn't need any special maintenance. The main concern will be to follow strict and regular security procedures to control access to the machine and program.

Please refer to the "Security" section in the current document for details.

Installation Steps

1- Copy installation files

The installation package includes a "setup.exe" file.

Double click on "setup.exe" file. The following screen will appear.

The setup program will proceed with copying the required files from the package directory to their installation locations.



2- Start installation

After finishing copying installation files the setup program will prompt you to proceed with installation. Click “OK” to proceed.

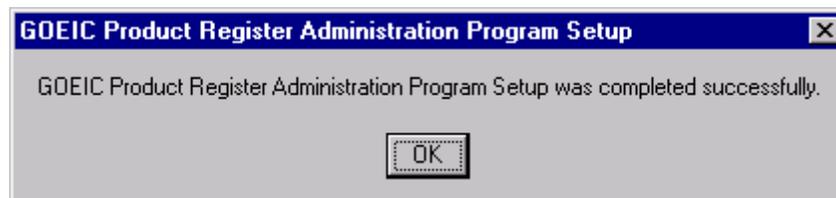


3- Completing the installation

The installation location is by default: “C:\Program Files\goeic_admin\”. If you want to change this location, click on “Change Directory” button and select another installation directory.

After determining the installation directory, press the large graphic button to install the program.

If the installation was successful, a confirmation dialog box will be displayed.



ADMINISTRATOR RESPONSIBILITIES

The following procedures represent a full cycle of events that has to be performed by the administrator. How often this cycle must occur is left to GOEIC officials to determine.

- 1- Set or change the product qualification conditions / criteria which consists of two variables:
 - a) How many times a product successfully “Passed” a lab test (consecutive passes)
 - b) How many months have passed since the “Last” lab test of a product.
- 2- Apply the qualification conditions to product records in SQL Server Product register database.
- 3- Select the products to be registered after qualifying the products recorded in the database.
- 4- “Registered” products will not be sampled or tested in labs.
- 5- Select the products to be un-registered. These products will be subjected to future sampling and testing.

Please refer to the “Operations and Interaction cycle” section for a view of the full cycle of events.