LAB WORKING GROUP REPORT

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LAB WORKING GROUP REPORT

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I. SUMMARY

Current food regulations in Egypt are seriously ineffective in ensuring the safety of food and the health of consumers. Several organizations, with overlapping missions, govern food safety in Egypt; these include agencies within the ministries of Health and Population, Agriculture and Land Reclamation, Trade and Industry, Social Solidarity, and Electricity. Honest food producers struggle to comply with the requirements of these multiple regulatory agencies, and the consumer is the ultimate loser in this battle. On the contrary, questionable food producers benefit from the multiplicity and contradiction between these organizations. Existing food specifications (standards) are bloated with non-essential descriptive and proximate analyses, but lack the specifics on critical food safety parameters.

The Lab Working Group recognizes the excellent laboratory facility in many Egyptian organizations involved in food safety. The Group is also impressed with the qualifications and capabilities of many analysts working in the labs of these organizations. However, current analytical methods, as practiced in many labs, are not sufficient to definitively detect disease-causing organisms or accurately quantify toxic chemical hazards in food. This shortcoming exists despite the presence of world-class lab facilities, and competent analysts in Egypt.

The Groups also noticed unnecessary redundancy in food analysis. For no good reason, many imported foods are analyzed repeatedly and simultaneously by up to three different agencies, i.e., Ministry of Health labs, Ministry of Agriculture centers, and labs of the General Organization for Export and Import Control (GOEIC). This redundancy in analysis comes at the expense of importers, and eventually the consumers, but does not assure the safety of food. All these labs run the same set of tests that are dictated by vague Egyptian specifications. While labs from different ministries compete for analyzing imported food, samples from local market are analyzed only by one of the regulatory agencies, and sometimes in poorly-equipped labs. Labs are not rewarded for carrying out analyses from local markets unless they are involved in analysis of export shipments at the request of the exporter.

Some labs with mandates to analyze Egypt's market food often report suitability of food for human consumption, or lack thereof, without providing results of analysis in detail. Good documentation is needed for scrutinizing these results, comparing results of different labs, or assessing risks to human health.

A presidential memorandum by the National Specialized Councils, dated March 29, 2006, described the food safety crises in Egypt. The Councils experts recommended that a food safety organization is established to (a) protect consumer's health through safer food and (b) issue uniform food regulations in Egypt.

In addition to uniform food regulations, the proposed food safety organization should (a) manage food inspection and sampling, (b) oversee analysis of food for agents that cause human diseases, (c) study and evaluate the exposure to different hazards, (d) detect the links between contaminated food and disease outbreaks, and (e) publish critical food safety information to educate food producers, retailer and consumers.

II. INTRODUCTION

A new regulatory agency (Food Safety Agency) is being established in Egypt to protect the health of consumers through ensuring the safety of food and to unify regulations governing food safety. The new agency should have the means to assess the safety of food reliably and timely. Assessment of food safety is accomplished through proper food sampling and accurate analysis for agents that cause health hazards.

Diseases are transmitted by foods that carry physical hazards (e.g., sharp metal or glass fragments), chemical hazards (residues of heavy metals and pesticide, unapproved additives, and toxic or carcinogenic products of organism that grow in food), and biological hazards (pathogenic bacteria, fungi, parasites and viruses). Relative importance of some hazards varies from a country to another. For example, botulism (a disease caused by a bacterial toxin) is still a significant problem in Egypt while incidence of this disease in developed countries has diminished to a very low level. Diseases associated with consumption of raw or under-processed milk are almost non-existing in many countries while the problem lingers in the Egyptian society. Therefore, the labs of the new agency should not only analyze for internationally-recognized food-borne hazards, attention should also be given to disease agents peculiar to the Egyptian food supply.

Analytical labs are the corner stone of the new Egyptian food safety agency. Success of the new agency depends on the availability of (i) well-equipped labs, (ii) highly-skilled analysts, (iii) competent lab management, and (iv) well-defined procedures and methods to assess food safety.

III. GOALS

The goal of the Lab Working Group is to analyze the gaps in current Egyptian food safety system and to provide recommendations on how existing or new food labs will be used by the Food Safety Agency of Egypt.

IV. APPROACH

The following approach was implemented by the Lab Working Group to achieve its goals:

- Visiting a sample of labs involved in food safety assessment in Egypt.

- Carry out a preliminary evaluation of the visited labs in terms of:

    • Facility, including infra-structure and analytical equipment.

    • Competence of technical staff, including analysts and technicians.

• Lab management style.

• Lab functionality.

- Estimate lab capabilities and potentials.

This shed a light on the ability of the labs to handle the analytical load required to assess the safety of food, at the present and in the near future.

SELECTION OF LABS FOR VISITS

A total 40 labs were identified as relevant to food analysis in Egypt (***Appendix-1***). We decided to visit a sample of these labs (shown below), with these considerations in mind:

- Risk analyzed: Bacterial pathogens, toxic residues, etc.
- Geographic location
- Commodity analyzed: Animal products, plant products, processed food, etc.
- Authorization: Labs mandates to analyze some foods.
- Miscellaneous factors:

  Analysis of export, import, or local foods.

  Government vs. private.

LABS VISITED

The following labs were visited by the Lab Evaluation Team (Dr. Ahmed Ayesh, Dr. Fouad El-Tahan, and Dr. Ahmed Yousef) in January and February, 2008. Visits agenda is shown in ***Appendix-2*** of this report. Updates about these visits were presented at the TAPR-II Workshop in Ein-Sokhna, January 31, 2008, and at the meeting of the Lab Working Group, February 14, 2008.

- **Ministry of Agriculture and Land Reclamation (MALR)**
  - Regional Center for Food and Feed (RCFF)
  - Animal Health Research Institute [Cairo Central lab and Alex branch]
  - Central Lab of Residues Analysis of Pesticides and Heavy Metals in Food (CLRAPH)
- **Ministry of Health and Population (MHP)**
  - Central Labs of Ministry of Health – Cairo
  - Branch Labs (Alexandria, Kalyoubia, Port-Said)
- **Ministry of Trade and Industry (MTI)**
  - General Organization for Export and Import Control (GOEIC)
    [Ports in Cairo, Alexandria, Port Said, and Suez]
  - General Egyptian organization of Standards and Quality (EOS)
- **Ministry of Investment**

- Food Development Center- Kaha, Kalyoubia

- **Independent labs**
  - Sokhna Port Lab, Ain-Sokhna
  - SGS

QUESTIONNAIRE TO LAB MANAGERS

A questionnaire was assembled by the Lab Working Group and completed by the lab mangers (*Appendix-3*). Observations of the Lab Evaluation Team (A. Ayesh, F. Tahan, and A. Yousef) are added during visits. Data have been compiled, summarized and included in this report.

V. OBSERVATIONS OF LAB EVALUATION TEAM

1. Regional Center for Food and Feed, Giza (MALR)

The center's main mandate is for feed (Min. Decree No. 525, 1980). Current major activities and training are consistent with this mandate. It is impressive that this governmental center is run like a business, with freedom from normal governmental regulation for operation, hiring, and incentives. The management of the Center was instrumental in implementing this pioneering model. Governmental labs, other than this Regional Center, now have revenue-generating units (special economic units). The Center employs a large number of highly-qualified analysts and researchers. Additionally, we were shown a plan for a new building with modern labs to house the Center.

Lab Evaluation Team did not observe Center's capability to analyze parasites, viruses and algae. However, the response of Center's management to our preliminary report (Appendix-5) indicates that the Center is indeed carrying out these functions. The Lab Evaluation Team also noticed that mycotoxin analysis is mainly dependant on TLC and flourometric methods and HPLC-based methods were not applied. Again, response of Center's management addressed this matter, indicating that HPLC methods have been in use for analysis of mycotoxins since 2001. Operating costs were not defined in Center's response to the questionnaire. The Team notice, with dismay, that the large amount of waste-solvents generated by the Center are not disposed of adequately.

In conclusion, the Regional Center for Food and Feed has large analytical capabilities, and qualified analysts. We suggest the Center takes a pivotal role in the analysis of mycotoxins in Egyptian food imports, exports and local market. Once the Center is relocated to the new building, its role in the Food Safety Agency needs to be reassessed.

Responses of the Regional Center for Food and Feed to the questionnaire submitted by the Lab Working Group are attached (Appendix-4). Additionally, response of Center's management to our preliminary report is shown as Appendix-5.

2. Animal Health Research Institute, Cairo Central Lab and Alexandria branch (MALR)

The Animal Health Research Institute includes a central lab in Cairo and branches in many other governorates. The Institute has a mandate to analyze foods of animal source, per Prime Min. Decree # 1186/2003. The Central Lab is housed in a renovated building in an affluent part of Cairo/Giza. The Institute employs a large number of analysts/scientists with impressive scientific background and great expertise in analysis for biological hazards. When we visited the Lab, we noticed that it receives a large number of poultry samples that are analyzed for Avian Influenza Virus. The Central Lab is equipped with the state-of-the-art analytical instruments. It is the only lab we visited that houses a DNA sequencer and analysts were busy using this modern instrument to compare virus strains. The Alexandria branch of the Institute is modestly equipped and staffed, but the analysts were very knowledgeable. While visiting the Central Lab, we learned about the inauguration of a state-of-the-art facility in Luxor, which adds capacity and quality to the Institute.

The Lab Evaluation Team noticed a modest expertise in chemical hazards analysis. For example, analysis for pesticide, as we have seen it, was done using thin-layer chromatography, which is inherently a low-resolution semi-quantitative technique. Analysis for seafood toxins is another area that must improve.

There is no question that the staff of the Institute has exceptional and unique experience in food-borne viruses and parasites. These two categories of foodborne pathogens are generally not emphasized in many Egyptian food analytical laboratories. The expertise of the Institute in this type of analysis would be of great help to the emerging Food Safety Agency.

Response of the Animal Health Research Institute to the questionnaire submitted by the Lab Working Group is attached (Appendix-6).

3. Central Lab of Residues Analysis of Pesticides & Heavy Metals in Food, Cairo (MALR)

This Ministry of Agriculture's Residues Lab is located in Cairo/Giza, across form the Animal Health Research Institute, and it has no branches in other governorates. The lab has a mandate to analyze some foods contaminates by Prime Min. Decree # 1186/2003. The lab also has a mandate to analyze residues in many imported and exported agricultural products and some food of animal origin, according to 13 Ministerial decrees.

The Lab is exceptionally well equipped and staffed to analyze the residues of pesticides and heavy metals, mycotoxins, and persistent organic pollutants (POPs) such as PCBs and Dioxins. The Lab houses the most-advanced dioxin analyzer we have seen in our visits. The lab is also equipped to analyze from many microbiological hazards in food. The work areas are well-designed and maintained. The Lab has a well-designed chemicals storage facility and inventory system. There is a good balance between resources and workload, and workers seem to enjoy their career. The lab sends 'sales persons" to seek new business and the management cares about "customer service," a concept that we rarely heard about in out visits. This is a good example of a government lab that is run with a sound business mentality. While visiting, we learned about facility expansion, and we have seen the construction of an adjacent building that should double the capacity of the Lab.

The Team noticed that the name of the lab does not reflect all the activities, including the microbiological analyses. It is also recommended that clones of this lab are established in other governorates. Despite its name, the Lab covers many microbiological analyses and we learned about a plan to analyze food for parasites and viruses.

In conclusion, the "Central Lab of Residues Analysis of Pesticides & Heavy Metals in Food," is well equipped and staffed to analyze food for heavy metals residues, pesticides residues, and persistent organic pollutants. We suggest the Lab takes these responsibilities in new Egyptian Food Safety Agency. Once the Lab expansion is completed, its role in the Food Safety Agency needs to be reassessed.

Response of the Central Lab of Residues Analysis of Pesticides & Heavy Metals in Food to the questionnaire submitted by the Lab Working Group is attached (Appendix-7).

4. GOEIC Labs: Cairo, Alexandria and Port Said labs (MTI)

The General Organization for Export and Import Control (GOEIC) manages an impressive collection of modern labs that are equipped with the state-of-the-art instruments. Members of the technical staff are promising analysts even though not all specializations are represented. Because of the great facility, these labs are potentially capable of analyzing a large number of food samples for physical, chemical and biological hazards. During our visits, we learned that a new GOEIC Lab has been built recently in Aswan.

Because of analysis redundancies, results from these labs may not be counted when decisions about the fate of analyzed food are considered. Analysts participate in a large number of training workshops, but they tend to be slow in responding to our technical questions. Professional hands-on training is needed to maintain staff expertise. Workload is low considering the large resources and the budget dedicated to these analyses.

In conclusion, GOEIC Labs can serve a critical role in the new Food Safety Agency. With proper staffing and management, these labs can accommodate a very large analytical load for many years to come. These labs are particularly geared to analyze for chemical hazards in food, but with expert support from ministries of Health and Agriculture, these labs can cover most of the analyses needed for imported foods.

Responses of GOEIC Labs to the questionnaire submitted by the Lab Working Group are attached (Appendix-8).

5. General Egyptian Organization for Standards and Quality (EOS), Cairo (MTI)

Located on the outskirts of Cairo, EOS plays an important organizational role. EOS issues Egyptian standards for different food commodities. The Lab Evaluation Team observed a good collection of new instruments funded by IMC (GC-MS, HPLC and TLC scanner); these instruments are currently underutilized, but may be used in various food analyses in the future. However, the current facility, expertise, and infra-structure are not suitable for food safety assessment.

6. Ministry of Health Labs: Cairo, Kalyoubia, Alexandria, and Port Said.

The Ministry of Health has a large Central Lab in Cairo and manages branch-labs in almost all Egypt governorates. Currently, these labs carry the mandate and the main burden of food analysis in Egypt. The Lab Evaluation Team visited the Central Lab and the branches in Kalyoubia, Alexandria, and Port Said. The Central Lab in Cairo and the branch lab in Port Said are very well-equipped and contain state-of-the-art instruments. We were told that Mansoura and Aswan branches are also good examples of the Ministry of Health labs, but we did not have a chance to visit these places. The Cairo Central Lab alone is analyzing more than 200,000 samples/year; these are mostly local-market samples. While visiting these labs, the Team met many experts in various aspects of human health and we were impressed with the breadth and depth of their knowledge. In the microbiological labs, we met staff with good technical skills. The Team also noticed these labs pay a great attention to water analysis; this is matched with good facility and expertise. The Central Lab provides the technical training and supervision for all branches; this is meant to maintain uniformity in analysis. To help maintain this uniformity, the Ministry of Health issues useful and detailed analytical manuals.

The Lab Evaluation team noticed a large discrepancies in facility, expertise, and functionality between the central and branch labs. Although methods are supposed to be uniformly applied in all labs, analysts apply and interpret these methods differently. Some of the analytical methods used in one of the branches are very qualitative and date back to the 1950's or earlier.

In conclusion, labs of the Ministry of Health encompass the greatest reserve of expertise and facility for the new Food Safety Agency. Modernization of branch labs will be a difficult task to undertake, but it is essential for minimizing the centralization of the new Agency. Analysis for biological hazards is the greatest strength of these labs. The Central Lab and similarly-equipped branches are adaptable to analyzing food for viruses and parasites.

Responses of Ministry of Health Labs to the questionnaire submitted by the Lab Working Group are attached (***Appendix-9***).

7. SGS Lab, Giza (Private)

SGS is an international company specialized in inspection, verification, testing and certification of various commodities including food. Offices of this company can be found in Egyptian seaports, and an SGS food analytical lab is located in Giza. The Lab Evaluation Team visited the SGS-Giza Lab. It encompasses a chemistry lab analyzing heavy metals, and a microbiology lab. We were impressed with the professionalism of the staff of this private lab.

The Lab is particularly interested in analyzing hospitality food (hotels and restaurants) and is involved in supermarket inspection and sample analysis. The lab, in general, has limited capabilities, and the pesticides residue analysis branch is still under development. The management has a very ambitious plan to expand their facility and establish a branch outside Cairo. The management also intends to expand the scope of analysis and include various food contaminants that contribute risk to human health.

Having a private food analytical lab is good trend in Egypt. The Food Safety Agency should consider including private labs in analyzing for foodborne disease hazards.

Response of SGS Lab to the questionnaire submitted by the Lab Working Group is attached (Appendix-10).

8. Sokhna Port Lab, Ain Sokhna, Suez (Private)

Sokhna Port Lab is the only organization we visited where analysts from the private sector, Ministry of Health and GOEIC work side-by-side in a collegial, friendly, collaborative environment. Despite management's best effort, Ministry of Agriculture is not part of this team. These labs are well designed, equipped and managed. The analysts are well-trained and follow the most up-to-date analytical methods. For example, while chemist analyze for aflatoxin, they use HPLC with post-column photochemical derivatization to confirm the identity of separated toxin (AOAC, 2006). In addition to the great facility and experienced staff, this lab is run by an excellent management. The manger provides a comfortable and friendly work environment, which boasts personnel confidence and morale. Safety of workers is obviously receiving a great attention as evident from various signs and the

compliance of workers to various safety rules. A plan exists to add labs for viruses and parasites. Currently, Lab capacity exceeds work load, however, facility expansion is an option for the management.

One of the goals of the new Food Safety Agency is the integration among various organizations governing food safety in Egypt. The Lab Working Group believes that Sokhna Port Lab is a great example of this integration. This unique experiment in Sokhna Port Lab should be studied carefully by the emerging Food Safety Agency. Additionally, this Lab should carry some of the analytical load for sample collected from the Canal and Red Sea regions.

Response of Sokhna Port Lab to the questionnaire submitted by the Lab Working Group is attached (Appendix-11).

VI. RECOMMENDATIONS OF THE LAB WORKING GROUP

9. What Labs Should Serve the New Food Safety Agency?

Existing vs. new labs. As a priority, the Food Safety Agency should rather make good use of existing functional labs than building new ones. Ideally the Food Safety Agency uses available labs as affiliates without disrupting their current status. In our preliminary estimates, current labs can accommodate the Egyptian food safety analytical load till 2012. Despite excess capacity, and for geographic considerations, there is a need to establish modern labs in select governorates to analyze samples from local markets. Additionally, barebone branch labs may be established in some remote governorates.

Identify Food Safety Agency affiliate labs. After establishing the Food Safety Agency, affiliate labs (that carry out food safety analyses) are identified on the basis of more comprehensive survey and evaluation than those included in this report. As a principle, Food Safety Agency affiliate labs should have expertise in analyzing biological and chemical hazards, and may subcontract additional tasks (e.g., proximate analysis of food) to other labs.

Lab "generic specialization." The labs to be affiliated with the Food Safety Agency should be initially identified by a "generic" specialization on the basis of one or a combination of the following factors:

- Type of analysis carried out (e.g., biological vs. chemical hazards).

- Nature of food analyzed (e.g., foods of plant vs. animal origin).

- Source of food (local, import or export).

- Geographic location (Cairo, ports, delta, Upper Egypt, remote locations).

Lab "specific specialization." We recommend that the Food Safety Agency scientific committee, in cooperation with the management and staff of candidate labs, assign two specialization statuses to each lab:

Primary Specialization, reflecting core competency in analyzing for a certain biological or chemical hazard, relevant to a given food category.

Secondary Specialization, related to lab's ability to analyze for a hazard other than that described under its primary specialization.

"**Principal" vs. "Alternative" affiliate lab.** Food Safety Agency-"Principal" affiliate lab is contracted to carry out food safety analysis for a defined period of time. However, an alternative lab should also be identified with these functions in mind:

Taking care of work overload.

Replacing contracted "Principal" lab that fails competency testing.

Serving as a backup if the "Principal" lab suffers catastrophic failure.

The new Food Safety Agency should support affiliate labs through:

- Training the technical and management staff in promising labs.

- Funding the acquisition of select equipment on the basis of competing proposals that are consistent with the mission of the Food Safety Agency.

- Covering costs of sample analysis.

10. Priorities for Labs and Analyses

- **Targeted sampling and analysis.**

  Sampling and analyses should be based on risk assessment; therefore, only foods with known association with diseases are analyzed for these particular disease-causing agents.

- **Lab priorities**

  Labs affiliated with the Food Safety Agency should be able to take responsibility for the following analyses at the frequency indicated.

  - Safety (frequently)

  - Adulteration (intermittently)

  - Composition (Sporadically)

- **Food analyzed priorities**

  Labs affiliated with the Food Safety Agency should be able to analyze the following categories of food at the frequency indicated.

  - High-risk (frequently)

  - Intermediate risk (intermittently)

  - Low-risk (Sporadically)

- **Contingency analyses**

  Affiliate labs should be able to handle non-routine analyses triggered by disease outbreaks. The Food Safety Agency scientific committee should reassess food's risk status based on statistics, and the labs should accommodate the corresponding analytical changes.

11. Sampling

Care in sample collection. The Lab Working Group realizes the importance of correct sampling and sample handling for accurate analysis. Poor sampling technique and sample mishandling by inspectors make results of analysis unreliable. Therefore, we suggest that during inspector selection process, the following qualifications should be considered:

- Previous lab experience is highly desirable.
- Good techniques in sampling, sample handling, and irregularity reporting.
- Integrity and ability to work independent of lab.
- Willingness to undergo rigorous periodical training to remain familiar with good sampling and sample handling techniques.

Duplicity of sampling and analysis is a serious problem that should be avoided. Food samples should be collected and analyzed only once, unless there is a real need to repeat the analysis.

12. Analysis Criteria

Uniform and modern analytical criteria should be developed.

- New food specifications (standards) need to be developed to reflect the urgency of food safety assessment. The new specifications need to be based on sound criteria that detect or quantify biological and chemical hazards.
- The new agency should emphasize uniform detection/quantification methods among different labs.
- Methods of analysis need to be constantly updated so that emerging pathogens and other health hazards are analyzed for, and health hazards are detected reliably.

13. Food Safety Agency Experimental Phase

Before full implementation, an experimental phase of the Food Safety Agency should start in a limited geographic location, and the experiment should last for a year, at least. We suggest that Suez-Red Sea area serves as the experimental location. This area has a good representation of imported, local and tourism foods. We also suggest that Sokhna Port Lab serves as the Food Safety Agency affiliate lab since it encompasses analysts from Ministry of Health and GOEIC, and has a plan to invite analysts from the Ministry of Agriculture. The Food Safety Agency in the experimental area will manage food inspection, sample collection, sample coding, result retrieval and interpretation, and product release or rejection. At the end of the experimental phase, the Food Safety Agency trial is evaluated before expanding the implementation to other locations of the country.

VII. LAB WORKING GROUP REMARKS

- The Lab Evaluation Team desired to visit as many labs as possible, in addition to its other functions. Each of the labs visited was assigned a half work-day for the visit. This half-day included transportation to and from the lab. It was impossible to see all the details of each lab (some were spread over several buildings), consider the time constraint.
- Members of the Lab Evaluation Team needed permissions to visit the labs at the Egyptian seaports (i.e., GOEIC Labs). We were assured by the labs management that permits will be granted at the time of the visit. However, there was a great deal of hassle in getting into custom areas where the labs are located. In fact, a member of the Lab Evaluation Team was denied entrance to Port Said GOEIC lab, for no obvious reasons. This exercise makes us wonder whether these labs will be easily accessible for inspection by an oversight team.
- Most labs we visited received accreditation from international organization, and these accreditations were included in labs responses to our questionnaire. To minimize the complexity of this report, we did not refer to these accreditations in this document.
- In many cases, it was almost impossible to match lab budget, facility and staffing with the number of sampled claimed to be routinely analyzed. In some Ministry of Health Labs, the number of samples analyzed seems to exceed resources. On the contrary, GOEIC labs analyze relatively small number of samples considering their large budget, facility, and staffing.
- It was encouraging that some labs use professional firms to dispose of their hazardous waste (e.g., items contaminated pathogens or toxins). However, we did not meet members of these firms and it is not clear to us whether these firms burn the waste or burry it in the desert.

APPENDIX

Appendix 1

بيان بأهم المعامل الرسمية والخاصة بالمحافظات

محافظة القاهرة

1)المعامل المركزية لوزارة الصحة (ش الشيخ ريحان، المعادى)
2)معامل الهيئة المصرية العامة للمواصفات والجودة (ش تدريب المتدربين – المطرية القاهرة)
3)معامل معهد التغذية (ش القصر العينى)
4)معامل مصلحة الكيمياء (12 ش رمسيس)
5)معامل GOIEC بمطار القاهرة

محافظة الجيزة

1) معمل بقايا المبيدات والمعادن الثقيلة وفروعه (الدقى-الجيزة)
2) معامل معهد بحوث صحة الحيوان (المعمل المرجعى) (الدقى-الجيزة)
3) معامل المركز القومى للبحوث (الدقى-الجيزة)
4) المعمل المركزى – كلية الزراعة – جامعة القاهرة (ش الجامعة – الجيزة)
5) معمل كلية الطب البيطرى – جامعة القاهرة (ش الجامعة – الجيزة)
6) معمل التحاليل الدقيقة – كلية العلوم – جامعة القاهرة (ش الجامعة – الجيزة)
7) المعمل المركزى للأغذية والأعلاف (ش الجامعة – الجيزة)
8) معامل معهد تكنولوجيا الأغذية (ش الجامعة – الجيزة)
9 معامل شركة SGS- الحرانية – الجيزة

محافظة القليوبية

1) المعامل المركزية (فرع القليوبية) لوزارة الصحة
2) المعمل المركزى – كلية الزراعة – جامعة عين شمس – شبرا الخيمة
3) المعمل المركزى – كلية العلوم – جامعة عين شمس –العباسية
4) معمل مركز تطوير الأغذية - قها

الاسكندرية

1) معامل الدخيلة بميناء الاسكندرية التابعة لـ GOIEC
2) معامل كموميبصل بالاسكندرية
3) معمل معهد بحوث صحة الحيوان بالاسكندرية
4) فرع المعامل المركزية لوزارة الصحة
5) مصلحة الكيمياء بالاسكندرية

دمياط

1) معمل دمياط التابع للـ GOIEC بالميناء
2) معمل دمياط التابع لمعهد بحوث صحة الحيوان
3) فرع المعامل المركزية لوزارة الصحة

بورسعيد

1) المعمل التابع للـ GOIEC بالميناء
2) معمل بورسعيد التابع لمعهد بحوث صحة الحيوان
3) فرع المعامل المركزية لوزارة الصحة

السويس

1) المعمل التابع للـ GOIEC بالأدبية
2) معمل العين السخنه (معمل خاص تتعاقد معه GOIEC)
3) فرع المعامل المركزية لوزارة الصحة

العريش

1) معمل العريش التابع لمعهد بحوث صحة الحيوان
2) فرع المعامل المركزية لوزارة الصحة

الاسماعيلية

1) فرع المعامل المركزية لوزارة الصحة
2) المعمل المركزى بجامعة قناة السويس

الشرقية

1) فرع المعامل المركزية بوزارة الصحة
2) المعمل المركزى بجامعة الزقازيق
3) المعمل المركزى بكلية الطب البيطرى – مشتهر الزقازيق

أسوان

1) معمل هيئة الـ GOIEC بأسوان
2) فرع المعامل المركزية بوزارة الصحة
جامعة جنوب الوادى؟
جامعة أسيوط؟
جامعة المنصورة

Appendix 2

LAB GROUP VISITS
Updated: Jan 28, 2008

Date	Place	Activity	Visit contact	Visit Status
Jan 20 (Sun)	Cairo (TAPR-II)	Lab Group meeting Discuss and finalize visit plan		
Jan 21 (Mon)	Giza	- Food & Feed Lab (Min of Ag) {9:30} - Animal Health Center (Min of Ag) {1:30}	Drs Omara/Amal Dr Mona Mehriz	Completed Completed
Jan 23 (Wed)	Cairo	- EOS {9:30am} - GOEIC Airport {1:30 pm}	Mr Abul-Futuh Samir/Hozayen	Completed Completed
Jan 24 (Thur)	Giza (TAPR-II)	SGS company {9:30am} Meeting, Lab Group: Discuss week's visits	Dr S. Dourgham	Completed Completed
Jan 27 (Sun)	Giza Cairo	- Pesticide Residue & Heavy Metals Lab-Dokki (Min of Ag) {9:30} - Min of Health- Central Lab {1:00}	Drs Sohair/Tahan Dr Wafa/Lucy	Completed Completed
Jan 28 (Mon)	Kalyoubia	- Food Center- Kaha {9:30} - Ministry of Health- Benha lab (1:30}	Dr Ayesh Dr Wafa/Lucy	Completed Completed
Jan 30 (Wed)	Suez	- GOEIC at Adabeyah port {10:30} - GOEIC Lab –Ain Sakhna {1:30}	Samir/Hozayen Samir/Hozayen	Completed Completed
Jan 31 (Thur)	Suez	Working groups workshop		
Feb 3 (Sun)	Alexandria	- GOEIC Lab - Dekhyla port {9:30} - Animal Health Center (Min of Ag) {1:30}	Samir/Hozayen Dr Mona Mehriz	Completed Completed
Feb 4 (Mon)	Alexandria	- Ministry of Health- Alex lab {9:30} - Koumibasal Lab {1:30}	Dr Wafa/Lucy Dr Ayesh	Completed <u>Cancelled</u>
Feb 7 (Thu)	Port Said	- GOEIC Lab {9:30} - Ministry of Health- PS lab {1:30}	Hozayen/Samir Dr Wafa/Lucy	Completed Completed
Feb 14 (Thur)	Cairo (TAPR-II)	Lab Group Meeting: Present final *Lab Capability* report		

Appendix 3

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: _____ **Location:** _____

Date: _____ **Visitors:** _____ **Visitors hosts:** _____

Lab type (gov., private, joint, etc.):			
Lab accreditation status:			
Foods or food categories most commonly analyzed to detect biological and chemical hazards			
Source (import, export, local, etc)			
Lab authorizations			

Type of Analyses Conducted: [List in the order of importance, and report frequency of sample analysis]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

	Bacteria	Viruses	Others (Parasite, fungi, algae)		
1.					
2.					
3.					
4.					
5.					

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

	Mycotoxins	Other biotoxins	Pesticide residues	Heavy metals	Others
1.					
2.					
3.					
4.					
5.					

Physical hazards

Metal	Glass	Others

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

	No. involved in these analyses:		
	Biological	Chemical	Physical
Ph.D.			
M.Sc			
B.Sc.			
Others			

Professional analytical training received in 2007
1.
2.
3.
4.
5.

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Laboratories

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs				
Area (m^2)				

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs				
Area (m^2)				

Instrumentation

[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	Pathogen detected	Samples/month
1.		
2.		
3.		
4.		
5.		

b. Detection/quantification of toxic agents	Agents detected	Samples/month
1.		
2.		
3.		
4.		
5.		

c. Detection of physical hazards	Hazard detected	Samples/month
1.		
2.		

Operating costs

	Maintenance	**Supplies**	**Incentives**	**Others**
~ Amount ($):				

Miscellaneous

- Is there a procedure for sample handling? Explain.

- What reference material available for this lab?

- How is hazardous waste disposed of?

- How are data recorded? Is there a record-keeping system?

Appendix 4

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: Food additives Lab **Location:** Regional Center For Food And Feed

Date: 21-1-2008 **Visitors:** **Visitors hosts:**

Lab type (gov., private, joint, etc.):	Government		
Lab accreditation status:	Preparing for accreditation		
Foods or food categories most commonly analyzed to detect biological and chemical hazards	1-Feed Stuff	3- Canned & bottled Food	
	2- Spices	4-cereals	
Source (import, export, local, etc)	5-honey & sweeteners		6- oils
Lab authorizations :	Central Lb. for Food & Feed was established in 1980 and still is independent according the governmental decrees no. 525 for year 1980 and no. 82 for year 1988 and its name is changed from Central Lb. for Food & Feed to Regional Center for Food & Feed according to ministerial decree no.30 for year 2007		

Type of Analyses Conducted: [List in the order of importance, and report frequency of sample analysis]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

	Bacteria	Viruses	Others (Parasite, fungi, algae)		
1.					
2.					
3.					
4.					
5.					

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

	Mycotoxins	Other biotoxins	Pesticide residues	Heavy metals	Others
1.					Food additive (illegal dyes (Sudan group)- BHA.BHT-ethoxyquin (feed) sweeteners (saccharin)- ethanol benzoic & sorbic – ethanol Chemical hazards (HMF-acrylamide)
2.					
3.					
4.					
5.					

Physical hazards

Metal	Glass	Others

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

	No. involved in these analyses:		
	Biological	Chemical	Physical
Ph.D.		1	
M.Sc		1	
B.Sc.		1	
Others		1	

Professional analytical training received in 2007
1.Attend the food additives committee in China April, 2007
2.Attend seminar in Morroco
3.
4.
5.

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Laboratories

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs		**One**		
Area (m^2)		**40m^2**		

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs				
Area (m^2)				

Instrumentation

[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	Pathogen detected	Samples/month
1.		
2.		
3.		
4.		
5.		

b. Detection/quantification of toxic agents	Agents detected	Samples/month
1. HPLC	All previous additives & hazards chemicals	Up to 3000 samples/ Years.
2. GC		
3. LC-MS (current tender)		
4.		
5.		

c. Detection of physical hazards	Hazard detected	Samples/month
1.		
2.		

Operating costs

	Maintenance	**Supplies**	**Incentives**	**Others**
~ Amount ($):				

Miscellaneous

- Is there a procedure for sample handling? Explain.
  According to the ref. for each test method

- What reference material available for this lab?
Internal Ref, material

- How is hazardous waste disposed of?

- How are data recorded? Is there a record-keeping system?
The data are recorded as hard copies and stored inside the lab for three year and stored as a soft copy (Laboratory Information Management System- LIMS).

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: **Food safety lab.** **Location:** Regional Center For Food And Feed

Date: **21-1-2008** **Visitors:** **Visitors hosts:**

Lab type (gov., private, joint, etc.):	Government		
Lab accreditation status:	Lab. Has accredited (ISO 17025) by American Association for laboratory Accreditation (A2LA)		
Foods or food categories most commonly analyzed to detect biological and chemical hazards Source (import, export, local, etc)	cereals	meat	feed
	milk	water	
Lab authorizations	Central Lb. for Food & Feed was established in 1980 and still is independent according to the governmental decrees no. 525 for year 1980 and no. 82 for year 1988 and its name is changed from Central Lb. for Food & Feed to Regional Center for Food & Feed according to ministerial decree no.30 for year 2007		

Type of Analyses Conducted: [List in the order of importance, and report frequency of sample analysis]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

	Bacteria	Viruses	Others (Parasite, fungi, algae)		
1.	Food poisoning	Norwalk virus	Mycotoxogenic (Aspergillus, Fusarium , Penicillium)		
2.	Food spoilage	Avian flu virus	Parasite		
3.	Indicator	(all food borne viruses)	Pork protein		
4.	probiotics		Algae		
5.					

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

	Mycotoxins	Other biotoxins	Pesticide residues	Heavy metals	Others
1.		Bacterial			Antibiotics residues
2.		Toxins			Hormones
3.		E. coli			
4.		Bacillus cereus			
5.		Staph.aureus			

Physical hazards

Metal	Glass	Others
		Mould growth

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

	No. involved in these analyses:		
	Biological	Chemical	Physical
Ph.D.	1		
M.Sc	1		
B.Sc.	4		
Others	3		

Professional analytical training received in 2007
1. Faculty of veterinary medicine pern university – switzer land (Risk assessment of BSE in feed and feeding) August 2007. (One person) 2. Food safety course Michigan state university Michigan, USA, (July – 2008) (One person) 3. Risk assessment of BSE in feed and feeding Ras Sedr Dec. 2007. (Four persons)

All members can analyzed all types of hazards

TAPR-II

Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Laboratories

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs	**1**			
Area (m^2)	**60**			

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs	**1**			
Area (m^2)	**40**			

Instrumentation

[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	Pathogen detected	Samples/month
1. Real time PCR	all	Up to 5000 sample/ year
2. Standard thermal cycler		
3. Gel documentation system		
4. Images analyzer		
5. Phase contrast microscope DNA electrophoresis chamber + all general instruments (autoclave, stomacher) LC- MS- MS (Current tander)		

b. Detection/quantification of toxic agents	Agents detected	Samples/month
1. ELISA SYSTEM	Bacterial toxins	
2. PCR	Bacterial toxin genes	
3.		
4.		
5.		

c. Detection of physical hazards	Hazard detected	Samples/month
1. **Phase contrast microscope**	Moulds	
2.		

Operating costs

	Maintenance	**Supplies**	**Incentives**	**Others**
~ Amount ($):				

Miscellaneous

- Is there a procedure for sample handling? Explain.

The laboratory follows sample preparation procedure according to NMKL report No. 91 4th edition (2002). Pretreatment of food and feed samples for microbiological examination. All samples are handled under complete aseptic conditions using safety cabinets, sterile glassware and plastic wares, sterile stomacher bags and are kept at the relevant temperature (refrigerator or freezer) according to its type. Contaminated sample are autoclaved before disposal.

- What reference material available for this lab?

E. coli strain, B. cereus strain, Saccharomyces cerevisiae strain, Salmonella strain, E. coli O157:H7 stain, Lactobacillus acidophilus stain, Enterococcus faecium strain, Listeria monocytogenes strain, and maize (mon810) almost all food poisoning where isolated, biochemically and serologically identified and are kept at -80 ^{o}C.

Internal Ref, material (IRM)- Participation in proficiency testing schemes (PT).

- How is hazardous waste disposed of?

All biological hazards are autoclaved at 121 ^{o}C for at least 30 min. before ordinary disposal.

- How are data recorded? Is there a record-keeping system?

The data are recorded as hard copies (records of ISO system) and stored inside the lab for three year and in the institute for five years, the data are stored as a soft copy (Laboratory Information Management System- LIMS).

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: **GRAIN GRADING & INSPECTION LAB.** **Location:** Regional Center For Food And Feed

Date: **21-1-2008** **Visitors:** **Visitors hosts:**

Lab type (gov., private, joint, etc.):	Preparation of lab for accreditation
Lab accreditation status:	Lab. Has accredited (ISO 17025) by American Association for laboratory Accreditation (A2LA)
Foods or food categories most commonly analyzed to detect biological and chemical hazards	corn, Barley, Soy bean, Sorghum, Wheat
Source (import, export, local, etc)	
Lab authorization	Central Lb. for Food & Feed was established in 1980 and still is independent according to the governmental decrees no. 525 for year 1980 and no. 82 for year 1988 and its name is changed from Central Lb. for Food & Feed to Regional Center for Food & Feed according to ministerial decree no.30 for year 2007

Type of Analyses Conducted: [List in the order of importance, and report frequency of sample analysis]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

	Bacteria	Viruses	Others (Parasite, fungi, algae)		
1.					
2.					
3.					
4.					
5.					

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

	Mycotoxins	Other biotoxins	Pesticide residues	Heavy metals	Others
1.					
2.					
3.					
4.					
5.					

Physical hazards

Metal	Glass	Others
Any pieces of metal	Any pieces of glass	TOXIC SEED
		INSECTS

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

	No. involved in these analyses:		
	Biological	Chemical	Physical
Ph.D.			3
M.Sc			3
B.Sc.			4
Others			1

Professional analytical training received in 2007
1. Training course in fedral grains Inspection service (FGIS) USA (one person). 2. Training course in France export cereals, France. (two persons)

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Laboratories

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs			1	
Area (m^2)			~60	

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs				
Area (m^2)				

Instrumentation
[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	Pathogen detected	Samples/month
1.		
2.		
3.		
4.		
5.		

b. Detection/quantification of toxic agents	Agents detected	Samples/month
1.		
2.		
3.		
4.		
5.		

c. Detection of physical hazards	Hazard detected	Samples/month
1. CARTER DOCKAGE	BROCKEN KERNAL & FOREIGN MATERIAL ,STONS, GLASS, METALS	~150
2. Cargo dividers , Borner dividers	Spores, dust	

Operating costs

	Maintenance	**Supplies**	**Incentives**	**Others**
~ Amount ($):				

Miscellaneous

- Is there a procedure for sample handling? Explain.
According to the ref. for each test method

- What reference material available for this lab?
Internal Ref, material

- How is hazardous waste disposed of?

- How are data recorded? Is there a record-keeping system?
The data are recorded as hard copies (records of ISO system) and stored inside the lab for three year and in the institute for five years, the data are stored as a soft copy (Laboratory Information Management System- LIMS).

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: **Mineral lab.** **Location:** Regional Center For Food And Feed

Date: **21-1-2008** **Visitors:** **Visitors hosts:**

Lab type (gov., private, joint, etc.):	Government		
Lab accreditation status:	Lab. Has accredited (ISO 17025) by American Association for laboratory Accreditation (A2LA)		
Foods or food categories most commonly analyzed to detect biological and chemical hazards	Jam	Caned food	Raw materials
	Cooked food	Fish and fish product canded or Raw	
Source (import, export, local, etc)			
Lab authorizations	Central Lb. for Food & Feed was established in 1980 and still is independent according to the governmental decrees no. 525 for year 1980 and no. 82 for year 1988 and its name is changed from Central Lb. for Food & Feed to Regional Center for Food & Feed according to ministerial decree no.30 for year 2007		

Type of Analyses Conducted: [List in the order of importance, and report frequency of sample analysis]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

	Bacteria	Viruses	Others (Parasite, fungi, algae)		
1.					
2.					
3.					
4.					
5.					

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

	Mycotoxins	Other biotoxins	Pesticide residues	Heavy metals	Others
1.				Mercury	
2.				Arsenic	
3.				Lead	
4.				Cadmium	
5.					

Physical hazards

Metal	Glass	Others

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

	No. involved in these analyses:		
	Biological	Chemical	Physical
Ph.D.		2	
M.Sc		4	
B.Sc.		3	
Others		2	

Professional analytical training received in 2007
1.
2.
3.
4.
5.

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Laboratories

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs		**One**		
Area (m^2)		**60m^2**		

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs				
Area (m^2)				

Instrumentation

[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	Pathogen detected	Samples/month
1.		
2.		
3.		
4.		
5.		

b. Detection/quantification of toxic agents	Agents detected	Samples/month
1.		
2.		
3.		
4.		
5.		

c. Detection of physical hazards	Hazard detected	Samples/month
1. ICP plasma	Hg, As	300/M
2. Atomic absorption 3300, Z L 4100	Cd, Pb	

Operating costs

	Maintenance	**Supplies**	**Incentives**	**Others**
~ Amount ($):				

Miscellaneous

- Is there a procedure for sample handling? Explain.
  According to the ref. for each test method

- What reference material available for this lab?
Internal ref. material (IRM), Participation in proficiency testing schemes (PT), CRM

- How is hazardous waste disposed of?

- How are data recorded? Is there a record-keeping system?
The data are recorded as hard copies (records of ISO system) and stored inside the lab for three year and in the institute for five years, the data are stored as a soft copy (Laboratory Information Management System- LIMS).

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: Mycotoxin Lab **Location:** Regional Center For Food And Feed

Date: 21-1-2008 **Visitors:** **Visitors hosts:**

Lab type (gov., private, joint, etc.):	Government		
Lab accreditation status:	Lab. Has accredited (ISO 17025) by American Association for laboratory Accreditation (A2LA)		
Foods or food categories most commonly analyzed to detect biological and chemical hazards	1.Cereals	2.Legumes , nuts	3.Animals feeds
	4.Dairy products	5. Oil and fats	
Source (import, export, local, etc)	Imported, exported, local		
Lab authorizations :	Central Lb. for Food & Feed was established in 1980 and still is independent according the governmental decrees no. 525 for year 1980 and no. 82 for year 1988 and its name is changed from Central Lb. for Food & Feed to Regional Center for Food & Feed according to ministerial decree no.30 for year 2007		

Type of Analyses Conducted: [List in the order of importance, and report frequency of sample analysis]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

	Bacteria	Viruses	Others (Parasite, fungi, algae)		
1.					
2.					
3.					
4.					
5.					

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

	Mycotoxins	Other biotoxins	Pesticide residues	Heavy metals	Others
1.	Aflatoxin				
2.	Ochratoxin				
3.	Zearalenone				
4.	Fumonisin				
5.	Don toxin				

Physical hazards

Metal	Glass	Others

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

	No. involved in these analyses:		
	Biological	Chemical	Physical
Ph.D.		3	
M.Sc		1	1
B.Sc.		4	
Others		2	

Professional analytical training received in 2007
1.
2.
3.
4.
5.

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Laboratories

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs		1		
Area (m^2)		$40m^2$		

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs				
Area (m^2)				

Instrumentation

[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	Pathogen detected	Samples/month
1.		
2.		
3.		
4.		
5.		

b. Detection/quantification of toxic agents	Agents detected	Samples/month
1. H.P.L.C	AF,OCH,ZER,FU	250
2. FLUOROMETER	AF,OCH,ZER,FU	300
3. E.L.I.Z.A	AF,OCH,ZER,FU,DON	50
4. T.L.C	MYCOTOXIN	250
5. H.P.L.C	AF,OCH,ZER,FU	250

c. Detection of physical hazards	Hazard detected	Samples/month
1.		
2.		

Operating costs

	Maintenance	**Supplies**	**Incentives**	**Others**
~ Amount ($):				

Miscellaneous

- Is there a procedure for sample handling? Explain.
  According to the ref. for each test method

- What reference material available for this lab?
Internal ref. material (IRM), Participation in proficiency testing schemes (PT)

- How is hazardous waste disposed of?

- How are data recorded? Is there a record-keeping system?
The data are recorded as hard copies (records of ISO system) and stored inside the lab for three year and in the institute for five years, the data are stored as a soft copy (Laboratory Information Management System- LIMS).

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: WATER ANALYSIS **Location:** Regional Center For Food And Feed

Date: 21-1-2008 **Visitors:** **Visitors hosts:**

Lab type (gov., private, joint, etc.):	Gov.		
Lab accreditation status:	Preparing for accreditation		
Foods or food categories most commonly analyzed to detect biological and chemical hazards	Drinking water	Well water	Bottled water
	irrigation	Domestic and industrial waste water	
Source (import, export, local, etc)	local		
Lab authorizations :	Central Lb. for Food & Feed was established in and is still independent according the governmental decrees no. 525 for year 1980 and no. 82 for year 1988 and its name is changed from Central Lb. for Food & Feed to Regional Center for Food & Feed according to ministerial decree no.30 for year 2007		

Type of Analyses Conducted: [List in the order of importance, and report frequency of sample analysis]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

	Bacteria	Viruses	Others (Parasite, fungi, algae)		
1.					**Chemical and Physical analysis of waste water**
2.					Dissolved Oxygen Ammonia,
3.					BOD, COD, Nitrate
4.					TS , TDS , TSS ,
5.					Sulfate, Hardness, pH

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

	Mycotoxins	Other biotoxins	Pesticide residues	Heavy metals	Others
1.					**Chemical analysis of drinking water**
2.					Hardness, Nitrate,
3.					Sulfate, Ts , TDS , TSS
4.					Carbonate and Bicarbonate
5.					Chlorine, Chloride, Fluoride, Dissolved Oxygen

Physical hazards

Metal	Glass	Others
		Drinking water (Color , Odor, pH, Specific Gravity, Salinity, Conductivity, Turbidity

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

	No. involved in these analyses:		
	Biological	Chemical	Physical
Ph.D.		2	
M.Sc		1	
B.Sc.		1	
Others		-	

Professional analytical training received in 2007
1.
2.
3.
4.
5.

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Laboratories

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs		**1**		
Area (m^2)		**40**		

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs				
Area (m^2)				

Instrumentation

[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	Pathogen detected	Samples/month
1.		
2.		
3.		
4.		
5.		

b. Detection/quantification of toxic agents	Agents detected	Samples/month
1. Ion – meter Orion 960		Water samples 80-100/month
2. Spectrophotometer		
3. pH meter orion		
4. Conductivity meter orion		
5. Turbidimeter orbeco-Hellige		

c. Detection of physical hazards	Hazard detected	Samples/month
1.		
2.		

Operating costs

	Maintenance	**Supplies**	**Incentives**	**Others**
~ Amount ($):				

Miscellaneous

- Is there a procedure for sample handling? Explain.
  According to the ref. for each test method

- What reference material available for this lab?
  There are In-house reference materials for each test.

- How is hazardous waste disposed of?
  All biological hazards are autoclaved at 121 ^{o}C for at least 30 min. before ordinary disposal

- How are data recorded? Is there a record-keeping system?
  Data are recorded as a hard ware and soft ware and (LIMS system)

Appendix 5

Ministry of Agriculture
Agric. Res. Center
Regional Center for Food & Feed

وزارة الزراعة
مركز البحوث الزراعية
المركز الإقليمي للأغذية والأعلاف

To the Evaluation team visiting Egyptian laboratories

Revising the report concerning Regional Center for Food and Feed

- It was not mentioned accreditation of laboratories which was obtained since 2004.

- In Mycotoxins Lab., it is mentioned in the report that HPLC based methods were not applied.

  This is not correct as the HPLC methods were applied in the mycotoxin lab. since 2001.

- Parasites, viruses and algae analyses have not been seen by the visitors.

  This is not correct as all these investigations is carried out in the lab since 2003 and explained by the head of the lab. to the visitors. Even though it is mentioned in the labs which are planning and is not mentioned in the labs which are applying.

As the questionnaire filled by Regional Center for Food and Feed showing the existence of the mentioned points, it is worthy to look at it and discuss it with the staff.

Executive Director

H. Emara

Dr. Mohamed Emara

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٩ شارع الجامعة - جيزة - ت : ٥٧٣٢٢٨٠ - ٥٧٣١٩٨٩ فاكس : ٥٧١٣٢٥٠ ص.ب ٥٨٨ أورمان

Appendix 6

Ministry of Agriculture and Land Reclamation
Agriculture Research Center
Animal Health Research Institute

Location Nadi Elsaid St., Dokki, Giza

Food most common analyzed

1. Meat and meat products
2. Fish and fish products
3. Milk and milk products
4. Poultry and poultry products

Lab type: governmental

Analysis units:

1. Fish bacteriology unit
2. Milk bacteriology unit
3. Meat bacteriology unit
4. Media preparation unit
5. Brucella unit
6. mycology unit
7. Residue analysis unit
8. Chemical analysis units
9. Biotoxin unit
10. Molecular biology unit
11. Virus isolation units
12. Parasitology unit
13. Fish parasites unit
14. Pathology unit
15. Sample reception units

Bacterial hazards

Bacteria	fungi	Viruses	Parasites	Others
Salmonella Spp.	Mould and yeast count	Avian influenza	Cysticircus	PSE
Staphylococcus aurous	Fish fungus	Foot and mouth disease	Sarcocyst	
E-coli		Rift valley fever	Haydated cyst	
Listeria monocytogene		Rota viruses	Toxoplasma	
vibrio parahaemoleticus		Corona viruses	Fish parasites	
Total aerobic count		Adeno viruses		
Shigella				
Bacillus cereus bacteria				
Cl. perfiringenes				
Cl. botulinum				
Brucella				

Chemical hazards

Mycotoxins	Other biotoxin	Heavy metals	Pesticides	Others
Aflatoxin	Staph toxin	Mercury	PCBs	Hormones
Ochratoxin	Cl. botulinum	Lead	Organochlorine	Vet. drugs
		Cadmium	Organophosphorus	

Physical hazards

Metal	Glass	Other
Yes	Yes	Organoleptic examination

Personnel

	Hazard			Administrative
	Bacterial	Chemical	Physical	
Ph.D.	59	16	24	
M.Sc.	36	1		
B. Sc	37	5		30
Other				

No of labs and area

	Biological	Chemical	Physical	Other
No	18	5	2	
M^2	650	160	100	

Instrument
Detection/ quantification of pathogen

Instrument	pathogen	Sample / month
Cooling Incubator Colony counter Tube vortex Microscope pH Meter Autoclave Hot Air oven Water distillator Stomacher Microscope Water bath Thermohygrometer Biosafety cabinet PH meter Dispenser Water bath	Salmonella Spp. Staphylococcus aurous E-coli Listeria monocytogene Vibrio parahaemelytices Total aerobic count Shigella Bacillus cereus bacteria Cl. perfiringenes Cl. botulinum Brucella	3000
PCR – Real time PCR Extractor	Avian influenza	30000
Biosafety cabinets Incubators Co2 incubators Inverted Microscope F A microscope Autoclave	Foot and mouth disease Rift valley fever Rota viruses Corona viruses Adeno viruses	
Microscope Centrifuge	Parasites	500
Microscope Tissue microtome Oven Autoclave	PSE	

Detection/ quantification of toxic agent

Hazard	Instrument	Sample / month
PCBs Organochlorine Organophosphorus	Evaporator Cooling centrifuge Homogenizer plates of TLC apparatus Heater Hot air over U.V. Lamp Shaker Chemical fume hood HPLC	500 each /month
Mercury Lead	Atomic Absorption	500 each / month
Cadmium	Atomic Absorption	150/month
Hormones Veterinary drugs	ELISA reader Evaporator Cooling centrifuge Homogenizer	500each/ month
Staph toxin	Sensitive balance Centrifuge Refrigerator homogenizer	500 / month
cl. Botulinum	Sensitive balance Centrifuge Shaker Syringe 1ml Homogenizer	200/ month
Aflatoxin	Sensitive balance Centrifuge Shaker Homogenizer Refrigerator Hot plate ELISA reader Evaporator Cooling centrifuge	500/ month
Ochratoxin	ELISA reader Evaporator Cooling centrifuge	10/month

There is sample reception and handling procedure in each reception units

There is sample-handling procedure in each examination and analysis unit

There is reference material in bacteriology, biotoxin and residue analysis units

There is internal positive and negative control in all examination and analysis activities

The disposal is done by autoclaving then by private medical waste service.

The data is recorded and kept manually and by using computers.

Animal health research institute hired a professional service to design and implement a laboratory data management system

Training accomplished in 2007 and plan of 2008 (supplemented document in Arabic)

Appendix 7

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: Central Laboratory of Residue Analysis of Pesticides and Heavy Metals in Food **Location: 7 Nadi El-said Street, Dokki, Giza, Egypt.**

Date: 27-1-2008 **Visitors: Dr. Ahmed Yousef, Dr. Ahmed Ayeish, Dr. Fouad H. El-tahan**

Visitors hosts: Dr. Sohair A. Gadalla (Lab Director), **Dr. Emil Y. Salam** (Technical Manager), **Dr. Emad Ramadan** (Quality manger)

Lab type (gov., private, joint, etc.):	**Governmental Laboratory; Affiliated to Agricultural Research Center (ARC), Ministry of Agriculture and Land Reclamation (MALR).**
Lab accreditation status:	**Valid accreditation according to ISO 17025:2005 from Finnish Accreditation Service (FINAS).** **Accreditation certificate includes: 21 analytical methods for chemical contaminates and 20 methods for Microbes detection.**
Foods or food categories most commonly analyzed to detect biological and chemical hazards	**Plant Origin Foods:** Fruits, vegetables, herbs, spices, cereals, medicinal plants, nuts, grains, dehydrated & dried products, canned foods, processed foods, vegetable oils, organic products. **Animal Origin Foods:** Fish & fishery products, milk and dairy products, fats and oils. **Others:** Honey, juices, sweeteners, baby foods, water.
Source (import, export, local, etc)	**Exported, imported, and local sources**
Lab authorizations	**13 Ministerial decrees issued for the lab as official and accredited lab of Ministry of Agriculture in its domain of works. (Please find attached list).**

Type of Analyses Conducted: [List in the order of importance, and report frequency of sample analysis]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

	Bacteria **[Lab Capacity: 45,000 examinations per year]**	Viruses	Others (Parasite, fungi, algae) **[45,000 examinations per year]**		
1.	Detection of Salmonella spp.	-	14. Enumeration of Moulds		
2.	Detection of Listeria monocytogenis	-	15. Enumeration of Yeasts		
3.	Detection of Shigella spp.	-			
4.	Enumeration of Clostridium perfringens	-			
5.	Enumeration of coaglase Staphylococcus aureus	-			
6.	Enumeration of Enterococci (faecal streptococci)	-			
7.	Enterobacter	-			
8.	Enumeration of Bacillus cereus	-			
9.	Enumeration of Escherichia coli	-			
10.	Thermotolerant coliforms (faecal coliforms)	-			
11.	Detection of Pathogenic Vibrio spp	-			
12.	Yersinia enterocolitica	-			
13.	Aerobic Total Plate Count	-			

Chemical hazards

(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

	Mycotoxins **35,000 samples per year**	Other biotoxins	Pesticide residues **100,000 samples per year**	Heavy metals **10,000 samples per year**	Others
1.	**Aflatoxins**	**-**	**Accredited 210 Pesticide Residues of all groups. Total: 230**	**Mercury**	**Dioxins** (17 congeners) 2800 samples/year
2.	**Ochratoxins**	**-**	**Fumigants (Methyl Bromide)**	**Lead**	**Nitrate** 3000 samples/year
3.	**Patulin**	**-**		**Cadmium**	**PCBs** 3000 samples/year
4.		**-**		**Tin**	**Sudan Dyes** 3000 samples/year
5.		**-**		**Copper**	**Veterinary Drugs** 3000 samples/year
6.		**-**		**Zinc**	**Antibiotics** 3000 samples/year
7.		**-**		**Iron**	**Benzopyrenes** 3000 samples/year

Physical hazards

Metal	Glass	Others
-	-	-

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

	No. involved in these analyses:		
	Biological	Chemical	Physical
Ph.D.	**1**	**14**	**-**
M.Sc	**1**	**22**	**-**
B.Sc.	**4**	**10**	**-**
Others	**4 technicians**	**32 technicians**	**-**
	5 Supporting Staff	**10 Supporting Staff**	**-**

	Professional analytical training received in 2007 - 2008
1.	Lab staff participated in "5th Committee related to Method Validation of Microbiology", England, 16-17 January, 2008.
2.	Lab staff participated in "EU Committee CEN/TC/275/WG/6 TA G 4", Spain, 26-27 November 2007.
3.	Implementing and discussion related to agricultural science "New Lab Project", Finland, 12-16 November 2007.
4.	Lab staff attended "Introduction to screening and confirmatory methodology for veterinary drugs residue", IAEA, Austria, 13-30 November 2007
5.	The Analysis of pesticide and contaminants in food and environment in CSL, England from 11-15 June 2007.
6.	The 4th meeting ISO/TC34/SC9/WG3, Validation of Microbiological Method in Netherland 11-12 June 2007.
7.	The European and Monitoring Rules for Pesticides in France from 4-15 June 2007.
8.	XIIth IUPAC Symposium on Mycotoxins and Phytoxins in Turkey from 21-25 May 2007.
9.	CEN meeting, TC 275/WG6 food microbiology from 26-27 April 2007 in Cairo.
10.	26th meeting of ISO/TC34/SC9 Food microbiology from 23 -25 April 2007 in Cairo.
11.	The Codex Committee for food additives and contaminants in Hungary from 5-9 March 2007.
12.	Lead Assessor Training Course offered by American Association for Laboratory Accreditation (A2LA), 2007.
13.	The third meeting ISO/TC 34/SC9/WG3, Validation of Microbiological Method in Belgium from 29-30 Jan. 2007.
14.	The fifth meeting ISO/TC 34/SC9/WG4 ISO Guide 43-PT Scheme for Microbiology in France in 16 Jan. 2007.

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Laboratories

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs	**One Lab (4 areas)**	**Three Labs (10 areas)**	**-**	**Space for Samples Storages, Chemical Warehouse, Reference Standards Room.**
Area (m^2)	**150 m^2 [600 after extensions]**	**800 m^2 [2500 after extensions]**	**-**	**300 m^2 [600 after extensions]**

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs	**One Lab (4 areas)**	**Three Labs (10 areas)**	**-**	**Space for Samples Storages, Chemical Warehouse, Reference Standards Room.**
Area (m^2)	**150 m^2 [600 after extensions]**	**800 m^2 [2500 after extensions]**	**-**	**300 m^2 [600 after extensions]**

Instrumentation

[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens		Pathogen detected	Samples/month
1.	**Culture methods**	Thermotolerant coliforms (faecal coliforms),	300 sample/month
2.	Culture methods	Enterococci (faecal streptococci),	300 sample/month
3.	Chromogenic Culture system Biochemical kits Anti sera	Escherichia coli,	300 sample/month
4.	Culture methods	Clostridium perfringens,	300 sample/month
5.	Culture methods Biochemical kits Anti sera	Salmonella,	300 sample/month
6.	Culture methods	Bacillus cereus	300 sample/month
7.		Enterobactericae ,	300 sample/month
8.	Chromogenic Culture system Biochemical kits Anti sera	Listeria monocytogen	300 sample/month
9.	Culture methods Biochemical kits Anti sera	Shigella sp.,	300 sample/month
10.	Culture methods	Staphylococcus aureus,	300 sample/month
11.	Culture methods	Vibrio cholerae,	300 sample/month
12.	Culture methods	Yersinia enterocolitica,	300 sample/month
13.	Culture methods	Detection of Yeasts	300 sample/month

14.	Culture methods	Detection of Molds	300 sample/month
15.	Culture methods	Aerobic Total Plate Count.	300 sample/month

b. Detection/quantification of toxic agents	Agents detected	Samples/month	
		Utilized Capacity	**Current Max. Capacity before extension**
1. **LC-MS/MS system** Liquid chromatograph system supplied with enhanced high performance triple quadrupole mass detector	**Pesticide Residues & Veterinary Drugs Residues & Antibiotics Residues**	150 samples/month	300 samples/month
2. **High Resolution GC-MSD (HRGC/HRMS) system** Gas chromatograph supplied with high resolution double-focusing magnetic sector mass selective detector	**Analysis of Persistent Organic Pollutants (POPs) including Dioxins:** - Polychlorinated dibenzo-dioxins (PCDDs), - Polychlorinated dibenzo-furans (PCDFs),	50 samples/month	250 samples/month
3. **GC-ECD (4 instruments)** Capillary Gas chromatograph systems supplied with electron capture detectors (GC-ECD)	**Pesticide Residues & Fumigants**	400 samples/month/ Instrument	840 samples/month/ Instrument
4. **GC-NPD (4 instruments)** Capillary Gas chromatograph systems supplied with nitrogen phosphorus detectors (GC-NPD)	**Pesticide Residues**	400 samples/month/ Instrument	840 samples/month/ Instrument
5. **GC-MSD (2 instruments)** Gas chromatograph systems supplied with quadrupole mass selective detectors (GC-MSD)	**Pesticide Residues**	150 samples/month/ Instrument	840 samples/month/ Instrument
6. **GC-FPD (2 instruments)** Capillary Gas chromatograph systems supplied with flame photometric detectors (GC-FPD)	**Pesticide Residues**	- samples/month/ Instrument	840 samples/month/ Instrument
7. **GC-FID (2 instruments)** Capillary Gas chromatograph systems supplied with flame ionization detectors (GC-FID)	**Pesticide Residues**	- samples/month/ Instrument	840 samples/month/ Instrument
8. **HPLC-UV-VIS,DAD,FLD (4 instruments)** High performance liquid chromatograph systems (HPLC) supplied with variable wavelength detectors (UV-VIS), diode array detectors (DAD) and florescence detectors (FLD)	**Mycotoxins & Nitrates & Sudan dyes**	15 samples/month/ Instrument	1500 samples/month/ Instrument
9. **AAS-Flame, hydride,** Atomic Absorption Spectrometer (AAS) supplied with flame, graphite furnace & Hydride	**Heavy Metals**	20 samples/month	1000 samples/month
10. **Spectrophotometer system** UV-VIS wavelength spectrophotometer	**Bezimidazole compounds**	10 samples/month	1000 samples/month

c. Detection of physical hazards	Hazard detected	Samples/month
1. -	-	-
2. -	-	-

Operating costs

	Maintenance	Supplies	Incentives	Others
~ Amount ($):	**110,000** USD	**1.2 million** USD	**750,000** USD	**R&D Activities 50,000** USD/Year

Miscellaneous

- Is there a procedure for sample handling? Explain.	**1- According to Codex Alimentarius Guidelines.** **2- According to EU Standards Guidelines.**
- What reference material available for this lab?	**1- Pesticides and PCBs (273 Active Ingredients).** **2- Mycotoxins (Aflatoxins, Ochratoxin, Patulin, Fuminisins)** **3- Heavy Metals (7 elements).** **4- Dioxins (17 Congeners).** **5- Sudan Dyes (6 dyes).** **6- Nitrates and Nitrites** **7- Veterainary Drugs & Antibiotics (15 reference standards).** **8- Benzopyrene (2 reference standards).** **9- Acrylamide.** **10- CRMs (50 for different analytical methods; 2007)**
- How is hazardous waste disposed of?	**Used Organic Solvents & Pesticides Wastes** Contracts with Egyptian Environmental Affairs Agency (EEAA) for waste disposal and landfills. **Autoclaving** for All used Materials in Microbiological lab prior to dispose.
- How are data recorded? Is there a record-keeping system?	▪ Local area network (LAN) augmented with Wide area network (WAN), ▪ The lab has a computer network (starting with reception & ending with information center). ▪ This network is connected to the server which securely maintains and backing up the whole analytical results since 1995 (Lab Information Center).

Appendix 8

TAPR-II

Laboratory Group, lab visits (Jan & Feb 2008)

I. Personnel and analytical capabilities

Laboratory: Cairo food testing **Location:** Cairo. air port

Date: 23/1/08 **Visitors:** Dr.A.Yousef, Dr.F.Eltahan **Visitors hosts:** Eng. Samir abd el messih / Eng. ragheb hozaien

Lab type (Gov., private, joint, etc.):	Gov., ministry of trade		
Lab accreditation status:	Accredited NLAB 008/021,015/2/030/050		
Foods or food categories most commonly analyzed to detect biological and chemical hazards	candy	coffee	Dairy
	Marine products	Honey	Meat
Source (import, export, local, etc)	(import-export)		
Lab authorizations	Prime minister No 1186/2003 att. No 3		

Type of Analyses Conducted: [microbiology-heavy metals- nutrition facts-detection of adulteration]

Biological hazards

(i.e., pathogenic species, causing food-transmitted diseases)

Bacteria	Viruses	Others (Parasite, fungi, algae)		
Salmonella	-	-	-	Yeast (ass100)
Staphylococci				
Coliform				
E.coli				
Enterobacteriaceae				
Staph aureus				

Chemical hazards

(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

	Mycotoxin	Other biotoxins	Pesticide residues	Heavy metals	Others
1.				Zn, Cu, Fe, Cd and pb	additives
2.				Na, k, and Ba.	
3.				Hg	
4.				Rest of elements	

Physical hazards

Metal	Glass	Others
Visual inspection	Visual inspection	

Laboratories

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs	5	4 + 2+1	2	1+1+1
Area (m^2)	206	300	54	87

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs	1	1		
Area (m^2)	100	94		

Instrumentation

[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens			Pathogen detected	Samples/month
1.	Autoclaves,	incubators	Salmonella	Meat 15/month
2.	Water baths,	microscopes	Staphylococci	dairy 40/month
3.	Stomachers,	balances,	Coliform	marine 37/month
4.	Laminars,	colony counters	E. coli	
5.	Vortexes, Distillator,	hot plates, ovens, pH meters	Enterobacteriaceae	

b. Detection/quantification of toxic agents			Agents detected	Samples/month
1.	AAS-GF, multiwave		Pb, Cd, Hg	50/month
2.	HPLC, GLC,	Flame photometer		
3.	flourometer		Toxic amines	12/month
	GLC(FID-FPD-ECD)		Nicotine – ricin	

c. Detection of physical hazards		Hazard detected	Samples/month
1.	Filth test	Insect fragments	50/month

Operating costs

	Maintenance	**Supplies**	**Incentives**	**Notes**
~ Amount ($):	8 million LE	4 million LE	6.3 million	Average of last 3 years

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility, Resources, Miscellaneous

Miscellaneous

- Is there a procedure for sample handling? Explain. Yes.
HD.WI.23.AP.01.Al

- What reference material available for this lab?
All GOEIC labs has one reference bank

- How is hazardous waste disposed of? Hazard Samples waste are autoclaved and delivered to waste treatment company , the rest of samples after testing delivered to client (HD.QP.18.Q.01)

- How are data recorded? Is there a record-keeping system? All records are in hard copy form except the final result which be recorded in electronic form

Attachments

I. *Handling of test items*
II. *List of equipments*
III. *Collection, transport and disposal of microbiology samples*
IV. *Master list of qualification and training*
V. *Lab drawing*
VI. *Accreditation certificates*
VII. *Sample frequency*
VIII. *electronic result used*
IX. *list of references*
X. *attachment No 3 of prime minister decree*
XI. *extending accredited scope*

Certificate of Accreditation

Accreditaion No. 008/021
Testing

The National Laboratories Accreditation Bureau

(NLAB)

To

Testing Laboratory for Quality of Food Products (2)
General Organization for Export and Import Control (GOIEC)
Cairo Airport Branch

Egypt

The Laboratory has been granted accreditation according to ISO / IEC 17025: 2005

The above-mentioned laboratory is accredited as permanent laboratory by the National Laboratories Accreditation Bureau (NLAB). NLAB ***is internationally recognized by the International Laboratory Accreditation Cooperation (ILAC) and is signatory to the ILAC Mutual Recognition Arrangement (ILAC-MRA).*****The laboratory has satisfied NLAB accreditation standard and regulations and the requirements of ISO/IEC 17025 : 2005. Accredited services are listed in the Accreditation Schedule attached and bearing the above accreditation certificate number. The schedule details the accredited parameters. This schedule may be revised, amended and reissued from time to time by NLAB according to the results of surveillance visits or upon a customer request to extend or reduce his scope of accreditation. The reissued schedule shall bear the following issue number but the same accreditation certificate number.**

Initial accreditation date: October, 2007 Reassessment date: October, 2011

Chief Executive of NLAB

Prof. Dr. Adel B. SHEHATA

Certificate of Accreditation

Accreditaion No.008/021
Testing

The National Laboratories Accreditation Bureau (NLAB)

To

Testing Laboratory for Quality of Food products

General Organization for Export & Import Control (GOIEC)

Cairo Airport Branch at the front of Cargo village

Laboratory Code No. : 015 / 2 / 030 / 050

The laboratory has been granted accreditation according to ISO / IEC 17025

The above-mentioned laboratory is accredited as permanent laboratory by the National Laboratories Accreditation Bureau (NLAB) which is the authorized body to accredit laboratories by the Presidential Decree No. 166 / 1996 and *is a Full Member at the International Laboratory Accreditation Cooperation (ILAC).*The laboratory has satisfied NLAB accreditation standard and regulations and the requirements of ISO/IEC 17025.

Accredited services are listed in the Accreditation Schedule attached and bearing the above accreditation certificate number. The schedule details the accredited parameters, range and associated uncertainties. This schedule may be revised, amended and reissued from time to time by NLAB according to the results of surveillance visits or the client request to extend or reduce his scope of accreditation. The reissued schedule shall bear the following issue number but the same accreditation certificate number.

Initial accreditation date: 12 April 2006 Reassessment date: April 2010

For NLAB,

Chief Executive

Issued by NLAB	1st Issue	April 2006

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: Dekhiella			**Location:** Dekhiella port		
Date:	03/02/2008	**Visitors:**	Prof. Dr. A.Yousef	**Visitors hosts:**	Eng. Samir Abd El Messih
			Prof. Dr. F. Eltahan		Eng. Ragheb Hozaien
Lab type (Gov., private, joint, etc.):			Governmental - General Organization for Export & Import Control Ministry of Trade and Industry		
Lab accreditation status:			Accredited A2LA	2204.01, 2204.02	
			Accredited EGAC	20408 A	
			Accredited DAP	DAP-PL-3811.00	
Foods or food categories most commonly analyzed to detect biological and chemical hazards			All Food Categories		Utensils Contact Foods
Source (import, export, local, etc)			(import-export-local)		
Lab authorizations			Prime minister No 1186/2003 and others (Attachment. No 1)		

Type of Analyses Conducted: [Microbiology-Heavy Metals-Toxins- Nutrition Facts-Detection of Adulteration Pesticide]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

Bacteria	Viruses	Others (Parasite, fungi, algae)
1. Detection of Salmonella Spp (Accredited)		8. Enumeration of Yeast
2. Enumeration of Enterobacteriace(Accredited)		9. Enumeration of mould
3. Enumeration of Total Bacterial Count (Accredited)		(Attachment. No 2)
4. Enumeration of E-coli		
5. Enumeration of Staph aureus		
6. Enumeration of Coliform		
7. Detection of Listeria monocytogenes		

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

Mycotoxin	Other Biotoxins	Pesticide Residues	Heavy Metals	Others
Determination of Aflatoxin in peanut (B1, B2, G1, G2)		Determination of Pesticide in fatty and non-fatty food	Determination of Lead and Cadmium in ceramic and glass ware (Accredit)	Determination of fatty acid in edible oils (Accredit)
			Determination of Lead, Cadmium, Zinc, Copper and Iron in Food (Accredit)	Determination of absorbance with ultraviolet (Accredit)
			Determination of Trace Element in Water and Mineral Water, Pen, Pencil, Marker	Determination of color, refractive index, iodine no., saponification no. and moisture in oils
				Determination of melting point, refractive index, %fat, relative humidity and moisture in butter and fat
				Richer Polanski krechnir (adulteration of oils)
				T.V.N in Meat and fish
				Histamine in sea food

				products (Accredit)
				T.B.A in Meat and fish
				Nitrogen tri Amine in fish
				Salt
				Total Soluble solids in Juice & Drinks
				Refractive index in foods (solids in syrups). (Accredit)
				Water extract in tea
				Sugars in Fruits and drinks
				Sugars in other samples
				Melting point for Vanillin and Ascorbic acid (Accredit)
				Total Ash
				Moisture in fruit products
				Moisture in other samples
				Protein in Skimmed milk powder (Accredit)
				Protein in other samples
				PH in Juice
				% Fat
				Microscopic Inspection for Starch
				Acidic Insoluble Ash
				Caffeine
				Alcohol
				Solubility
				% Metal Impurities
				Acidity in Fruits , Juices and Vinegar
				Insoluble Impurities in water
				Total Impurities
				Starch in grain products
				% Fiber
				% Total Acidity
				% Filing in chocolate and grain products
				% Purity of Chemicals
				Bursting Strength in Paper and Board. (Accredit)
				Weight and density (Accredit)
				Tensile Strength – Longitudinal

				Tensile Strength – Horizontal
				% of Whiteness
				% of Opacity
				% Ash
				Degree of Sizing
				Moisture (Accredit)
				Fiber
				Thickness (Accredit)
				% Silica
				% Protein in Dairy products
				% Moisture in Dairy products
				% Fat in Dairy products
				% Sucrose in Sugar, Candy and Honey
				Color Degree in Sugar, Candy and Honey
				Sugar in canned vegetables
				Moisture in grains by Moister Meter (Accredited)
				Wet Gluten in Wheat Flour (extraction 72%) by Glutamic System (Accredited)
				Falling number in wheat flour by Falling Number (Accredited)
				Test Weight in grains by Grain Scale (Accredited)
				Elemental Analysis by Elemental Analyzer (Accredited)
				Determination of % Fiber in Grain
				Determination of % Ash in Grain

Physical hazards

Metal	Glass	Others
1. Filth test	2. Filth test	3.Impurities, Color, Taste, Smell and Net weight
		4. Separation of Grain
		5. % Atrophied Grain

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

No. involved in these analyses:			
	Biological	Chemical	Physical
Ph.D.	1	1	
M.Sc	1	3	
B.Sc.	5	44	10
Others	1	4	

Professional analytical training received in 2007 (for Example)
1. General rules for microbiology
2. PCR Techniques and applications
3. Minitab Program Of Statistical Analysis
4. Analysis of drinking water
5. ISO 17025/2005
6. Analysis of fumigants residues in grains

	7. Gas Chromatography
	8. High Performance Liquid Chromatography HPLC
	9. High Performance Thin Layer Chromatography HPTLC
(Attachment. No 3)	10. Uncertainty
	11. Analysis of pesticides residues
	12. Method validation / Evaluation of equipment performance
	13. Analysis of Aflatoxin by HPLC with immunoaffinity clean up and post column derivatisation according to EN14123:2003 method
	14. Analysis of food additives
(Attachment. No 3)	15. Food Toxicology
	16. Statistics of chemical analysis
	17. Humidity measurement & calibration
	18. Identification of tobacco types
	19. Internal auditor training
	20. Temperature calibration
	21. Quality control in analytical chemistry
	22. Training on quality assurance/ quality control
	23. Mass calibration

Laboratories (Attachment. No 4)

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs	4	17	2	17 Administration
Area (m^2)	195	785	24	204

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs				
Area (m^2)				

Hazard Through Fume Hood

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Instrumentation (Attachment. No 5)
[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	**Pathogen detected**	**Samples/month**
Autoclave	Salmonella	Meat 1296/8month
Colony Counter	Listeria monocytogenes	Yeast 41/8month
Data Logger	Total Bacterial Count	Miscellaneous 47/8month
Freezers	E-coli	
Incubators	Staph aureus	
Oven	Coliform	
Balances	Enterobacteriace	
Conductivity/PH	Yeast	
Distillator	mould	
Hot Plates		
Laminar Flow		
Refrigerators		
b. Detection/quantification of toxic agents	**Agents detected**	**Samples/month**
AAS-GF, ICP	Pb, Cd, Hg	383/month
HPLC,	Toxins	100/month
FTIR HPTLC	inorganic	In Preparation
GLC mass (FID-FPD-ECD)	Nutrition, pesticide	453 /month
UV/VIS spectro	Quality of fats	11 /month
Kjeldahl Automatic		4347 /6month

Fluorometer		1013 /6month
Abbe Refractometer		472 /6month
Digital Melting point		22 /6month
Muffle oven		1028 /6month
Dry Oven		1220 /6month
Soxelett glass		513 /6month
Microscope		98 /6month
Bursting		235 /6month
Mullen Grammage		240 /6month
Tensile Strength		470 /6month
Microcolor		470 /6month
Incinerator		230 /6month
Saccarometer		190 /6month
Micrometer		142 /6month
c. Detection of physical hazards	**Hazard detected**	**Samples/month**
Filth test	Insect fragments	50/month
Falling No	Falling No	725/month
Moisture Meter	% Moisture	725/month
Grain Scale	Specific Weight	725/month
Glutomatic	Wet Gluten	10/month
Carter Dockage	Separation of Grain	725/month
Strand Sizer Shaker	% Atrophied Grain	725/month
Fiber Tec	% Fiber	794/month
Elemental Analyzer	% Protein	724/month
Oven	% Ash	694/month

Operating costs (Attachment. No 6)

	Maintenance	Supplies	Incentives	Notes
Amount (LE):	(Attachment. No 6)			

Miscellaneous

- Is there a procedure for sample handling? Explain.	Sample Handling (Attachment. No 7)
- What reference material available for this lab?	(Attachment. No 8)
- How is hazardous waste disposed of?	Hazard Samples waste are autoclaved and delivered to waste treatment company, the rest of samples after testing delivered to client (Attachment. No 9)
- How are data recorded? Is there a record-keeping system?	All records are in hard copy and electronic form (Attachment. No 10)
Accreditation Certificate (Attachment. No 11)	

Attachments to be Delivered During Assessment Visit	
(Attachment No. 1)	
1.	Prime Ministerial Decree No. 1186/2003
2.	Export & Import Inspection Test Laboratories
3.	Low No. 155/2002 On Export Promotion
(Attachment No. 2)	
1.	Accreditation Certificate from A2LA (with scope)
2.	Accreditation Certificate from EGAC (with scope)
3.	Accreditation Certificate from DAP (with scope)
(Attachment No. 3)	
1.	Training Report (Example for CVs)
(Attachment No. 4)	
1.	Layout of Microbiology Labs (Seven Layout)
2.	Layout of Chromatography Labs
3.	Layout of Pesticide Lab
4.	Layout of Trace Element Lab
5.	Layout of Heavy Metal Lab
6.	Layout of Chemistry Lab

7.	Layout of Paper Lab
8.	Layout of Grain Lab
9.	Layout of Organolyptic Lab
10.	Layout of Delivery and Receiving Lab
11.	Layout of Archiving Room
(Attachment No. 5)	
1.	List of Equipments in Chemistry Lab
2.	List of Equipments in Chromatography and Pesticide Labs
3.	List of Equipments in Grain and Organolyptic Labs
4.	List of Equipments in Microbiology Lab
5.	List of Equipments in Trace Element Lab
6.	List of Equipments in Paper Lab
7.	ISO 9001:2000 Certificate for Maintenance Company
(Attachment No. 6)	
1.	Operating Cost in Dekhiella Laboratory
(Attachment No. 7)	
1.	Handling and Protect Samples Inter the lab. HD.WI.23.C.01.Al
2.	Sample Tracking Process HD.QR.22.Q.01
3.	Traceability of Test Items HD.QP.23.Q.01
4.	تتبع العينة داخل المعمل فى معمل الحبوب HD.WI.21.G.01.Al
5.	تتبع العينة داخل المعمل فى معمل الفحص الحسى HD.WI.21.P.01.Al
6.	Chain of Custody HD.QR.22.Q.02
7.	Handling of Equipment and Sample Inside Laboratory HD.QP.23.Q.02
8.	Handling of Test Items in Aflatoxin Lab HD.WI.23.AP.01.Al
9.	Handling Test Items in Chromatography Lab HD.WI.23.R.01.Al
(Attachment No. 8)	
1.	List of Reference Material in Chromatography and Pesticide Labs
2.	List of Reference Material in Trace Element Lab
3.	List of Reference Material in Grain and Organolyptic Labs
4.	List of Reference Material in Chemistry Lab
5.	List of Reference Culture in Microbiology Lab
(Attachment No. 9)	
1.	Collection, Transport and Disposal of Bacteriological Samples HD.QP.18.Q.01
2.	Disposal of Sample Rest in Heavy Metal Lab HD.WI.22.H.M.01.Al
3.	Disposal of Sample Rest in Trace Element Lab HD.WI.22.T.E.01.Al
4.	Sample Disposal in Grain Lab HD.WI.22.G.01.Al
5.	Waste Management HD.QP.18.M.11.Al.
(Attachment No. 10)	
1.	Document Control HD.QP.04.Q.01
2.	Control of Records and Data HD.QP.14.Q.03
3.	Steps of Delivery and Receiving Department HD.WI.23.D.R.01.Al
4.	Sample Coding HD.WI.23.D.R.02.Al
5.	Keep Samples in Receiving and Delivery Department HD.WI.23.D.R.09.Al
(Attachment No. 11)	
1.	Accreditation Certificate from A2LA with Final Scope
2.	Accreditation Certificate from EGAC with Final Scope
3.	Accreditation Certificate from DAP with Final Scope

THE AMERICAN
ASSOCIATION
FOR LABORATORY
ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

GENERAL ORGANIZATION FOR EXPORT AND IMPORT CONTROL

Cairo, EGYPT

for technical competence in the field of

Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 18 June 2005*).

Presented this 10th day of July 2006.

President
For the Accreditation Council
Certificate Number 2204.01
Valid to June 30, 2008

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.

American Association for Laboratory Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

GENERAL ORGANIZATION FOR EXPORT AND IMPORT CONTROL,
CENTRAL DIRECTORATE OF FOOD TESTING LAB (GOEIC / CDFTL)
Dekhella Gate 5
Alexandria, Egypt
Youssef Labib Aziz Phone: 012 338 3263

CHEMICAL

Valid To: June 30, 2008 Certificate Number: 2204.01

In recognition of the successful completion of the A2LA evaluation process accreditation is granted to this laboratory to perform the following tests on grains, food ingredients, food stuffs and ceramics:

Test Name	Test Method
Chemical Tests	
Grains	
Falling Number	AACC Method 56-81 (2004)
Wet Gluten	AACC Method 38-12 (2004)
Test Weight	AACC Method 55-10 (2004)
Moisture	Steinlite Model SL-95 Manual
Food Ingredients	
Elemental analysis (Protein)	AACC Method 46-30 (2004)
Foodstuffs	
Types of Edible Oils (Fatty Acid Profile)	ISO Method 5509 (2000)
Grade of Olive Oil (Ultraviolet)	Int. Olive Oil Council-T20/No. 19 (2001)
Protein in Milk (Kjeldahl)	AOAC Method 930.29 (2003)
Histamine in Seafood (Fluorimetric)	AOAC Method 977.163 (2003)
Solids in Syrups (Refractive Index)	AOAC Method 932.14 (2003)
Melting Point	ES Method # 1697 (1989)
Ceramic Ware	
Trace Elements in Ceramic ware	ES Method # 2060 (2005)
Microbiological Tests	
Detection of *Salmonella* in food	ISO 6579 (2002)
Enumeration of Total Plate Count in food	ISO 4833 (2002)
Enumeration of Enterobacteriacae in food	ISO 21528-2 (2004)

5301 Buckeystown Pike, Suite 350 • Frederick, MD 21704-8373 • Phone: 301-644 3248 • Fax: 301-662 2974

THE AMERICAN
ASSOCIATION
FOR LABORATORY
ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

GENERAL ORGANIZATION FOR EXPORT AND IMPORT CONTROL
Cairo, EGYPT

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories.* This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 18 June 2005*).

Presented this 10th day of July 2006.

President
For the Accreditation Council
Certificate Number 2204.02
Valid to June 30, 2008

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.

THE AMERICAN
ASSOCIATION
FOR LABORATORY
ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

GENERAL ORGANIZATION FOR EXPORT AND IMPORT CONTROL
Cairo, EGYPT

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories.* This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 18 June 2005*).

Presented this 10th day of July 2006.

President
For the Accreditation Council
Certificate Number 2204.02
Valid to June 30, 2008

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.

American Association for Laboratory Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

GENERAL ORGANIZATION FOR EXPORT AND IMPORT CONTROL,
CENTRAL DIRECTORATE OF FOOD TESTING LAB (GOEIC / CDFTL)
Dekhella Gate 5
Alexandria, Egypt
Youssef Labib Aziz Phone: 012 338 3263

MECHANICAL

Valid To: June 30, 2008 Certificate Number: 2204.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on paper and paper products:

Test Name	Test Method
Thickness	Egyptian Standard #222:2005
Bursting in Paper	Egyptian Standard #96:2001
Bursting in Paper Board	ISO 2759:1983; Egyptian Standard #87:1996
Density	Egyptian Standard #223:1997
Moisture Determination	Egyptian Standard #592:2001
Conditioning for Paper Testing	Egyptian Standard #87:2001

5301 Buckeystown Pike, Suite 350 • Frederick, MD 21704-8373 • Phone: 301-644 3248 • Fax: 301-662 2974

DAP Deutsches Akkreditierungssystem Prüfwesen GmbH

Signatory to the Multilateral Agreement of EA for Mutual Recognition
and to the Mutual Recognition Arrangement of ILAC

represented in the

Deutscher AkkreditierungsRat

Accreditation

The DAP Deutsches Akkreditierungssystem Prüfwesen GmbH herewith confirms that the

Central Directorate
of Food Stuff Testing Laboratory

Dekheila Gate 5
Alexandria
Egypt

is competent under the terms of ISO/IEC 17025:2005 to carry out tests in the fields of

Determination of Lead, Cadmium, Zinc, Copper, and Iron in Food Stuff

in accordance with the test methods listed in the annex.
The accreditation is valid from 2006-10-30 to 2010-08-24.
DAR registration number: **DAP-PL-3811.00**
Berlin, 2006-10-30

p.p. Valbuena

Univ.-Prof. Dr.-Ing. habil. K. Ziegler
Managing Director
DAP Deutsches Akkreditierungssystem
Prüfwesen GmbH

See notes overleaf.

1st issue

DAP Deutsches Akkreditierungssystem Prüfwesen GmbH

Annex to the Accreditation Certificate DAP-PL-3811.00 according to ISO/IEC 17025:2005

Period of validity: 2006-10-30 to 2010-08-24

Certificate holder: **Central Directorate of Food Stuff Testing Laboratory**

Dekheila Gate 5
Alexandria
Egypt

Tests in the fields: **Determination of Lead, Cadmium, Zinc, Copper, and Iron in Food Stuff**

AOAC Official Method 999.10 2003	Lead, Cadmium, Zinc, Copper, and Iron in Foods - Atomic Absorption Spectrophotometry after Microwave Digestion

abbreviation used:

AOAC	Association of Official Analytical Chemists

Approved signatory for test reports for the above mentioned test method is:

Samir Abdel Meseh	Chemical Engineer

DEUTSCHES AKKREDITIERUNGSSYSTEM PRÜFWESEN 004 DAP EA DAR ILAC MITGLIED

شهادة اعتماد رقم (٢٠٤٠٨ أ)

جمهورية مصر العربية

المجلس الوطني للاعتماد (إيجاك)

يشهد بأن

الإدارة المركزية لمعامل اختبارات السلع الغذائية

الهيئة العامة للرقابة على الصادرات والواردات

ميناء الدخيلة ، بوابة (٥)

الإسكندرية - جمهورية مصر العربية

قد حصل على اعتماد المجلس حيث تم تقييمه ووجد أنه يتوافق مع المواصفات الدولية

ISO/IEC 17025/1999

فى مجال الاختبارات الكيميائية الموضحة بالبيان المرفق رقم (٢٠٤٠٨ ب)

ويكون الاعتماد سارياً فى الفترة

من : ٢٦ سبتمبر ٢٠٠٤ إلى : ٢٥ سبتمبر ٢٠٠٨

شريطة الحفاظ على التوافق مع المواصفات أعلاه والمتطلبات الخاصة بالمجلس

التاريخ : ٢٦ سبتمبر ٢٠٠٤

أمين عام المجلس

د.م. على النجار

رئيس المجلس

وزير التجارة الخارجية والصناعة

م. رشيد محمد رشيد

Accreditation Certificate No. (20408 A)

Arab Republic of Egypt

Egyptian Accreditation Council (EGAC)

certifies that

Central Directorate of Food Testing Laboratories

General Organization for Export & Import (GOEIC)

Dekheila Port, Gate 5

Alexandria - Egypt

has been accredited by EGAC after being assessed and found to comply with the requirements of

ISO/IEC 17025/1999

in the field of chemical testing

The scope of accreditation is described in the accompanying schedule No. (20408 B)

from: September 26, 2004 to: September 25, 2008

subject to continued compliance to the above standard and the requirements of EGAC

Date : 26 September 2004

Secretary General

Dr. Eng. Ali El-Naggar

Chairman of EGAC

Minister of Foreign Trade & Industry

Eng. Rachid M. Rachid

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: Port said			**Location:** Port said port		
Date:	07/02/2008	**Visitors:**	Prof. Dr. A.Yousef Prof. Dr. F. Eltahan	**Visitors hosts:**	Eng. Samir Abd El Messih Eng. Ragheb Hozaien
Lab type (Gov., private, joint, etc.):			Governmental - General Organization for Export & Import Control Ministry of Trade and Industry		
Lab accreditation status:			N-Lab	Accreditation in Progress in Microbiology Field Accreditation in Progress in Chemistry Field	
Foods or food categories most commonly analyzed to detect biological and chemical hazards			All Food Categories		Utensils Contact Foods
Source (import, export, local, etc)			(Import-Export-Local)		
Lab authorizations			Prime minister No 1186/2003 and others (Attachment. No 1)		

Type of Analyses Conducted: [Microbiology-Heavy Metals-Toxins- Nutrition Facts-Detection of Adulteration Pesticide]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

Bacteria	Viruses	Others (Parasite, fungi, algae)
1. Detection of Salmonella Spp		8. Enumeration of Yeast
2. Enumeration of Enterobacteriace		9. Enumeration of mould
3. Enumeration of Total Bacterial Count (Accreditation in Progress)		(Attachment. No 2)
4. Enumeration of E-coli		
5. Enumeration of Staphylococcus (Accreditation in Progress)		
6. Enumeration of Coliform		
7. Detection of Listeria monocytogenes		

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

Mycotoxin	Other Biotoxins	Pesticide Residues	Heavy Metals	Others
			Determination of Trace Element in ceramic and glass ware	Determination of fatty acid in edible oils
			Determination of Trace Element in Mineral Water	Determination of absorbance with ultraviolet
			Efficient writing test with ATW-10 from Mikron	Determination of Alkalinity in glass ware
			Determination of PbO percentage in crystal ware	Detection of decoration in ceramic and glass ware surface
			Determination of Na, Li, Fe, K, Ca, Ba in glass ware	Determination of type oils in tuna and sardine keeping in cans.
				Determination of aromatic cycle in detergent
				Detection of industrial detergent in soap and synthetic detergent.

				Determination of total fatty acid and ph in soap
				Determination of alkality or acidity component in all detergent
				TVN in meats and fish
				TBA in meats and fish
				Moisture %
				Protein %
				Fat %
				Salt %
				Red meat %
				Acidity %
				Lactose %
				Peroxide no.
				Total solids%
				Saponification no
				Iodine no
				Refractive index
				Melting point
				Nitrogen triamine
				Specific absorption
				Kirschner no
				Reichart no
				Polenske no
				Totoal fiber%
				Total Ash %
				Ash insoluble in acid
				Ash soluble in water
				Polarization degree
				Total sugars%
				Cacao solids%
				Reducing sugars%

Physical hazards

Metal	Glass	Others
1. Filth test	2. Filth test	3.Impurities, Color, Taste, Smell and Net weight
		4.Determination of Iron traces
		5.Detection of strange substances& plants
		6.Determination of fraction percentage in rice cereals
		7.Determination of impurities in wheat grains
		8.%Drained weight determination
		9.Determination of specific gravity of wheat grains
		10.Detection of unwanted flavours and turbidity
		11.%contents volume to aqueous capacity for packages
		12.Determination of specific gravity of malt

		drink
		13.Determination of net weight for package products
		14.Determination of net volume for package products
		15.Detection of pressure in cans
		16.Drip percentage in frozen meat determination

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

No. involved in these analyses:			
	Biological	Chemical	Physical
Ph.D.	2		
M.Sc			
B.Sc.	4	11	3
Others			

(Attachment. No 3)

(Attachment. No 3)

Professional analytical training received in 2007 (for Example)
1. General rules for microbiology
2. PCR Techniques and applications
3. Minitab Program Of Statistical Analysis
4. Analysis of drinking water
5. ISO 17025/2005
6. Analysis of fumigants residues in grains
7. Gas Chromatography
8. High Performance Liquid Chromatography HPLC
9. High Performance Thin Layer Chromatography HPTLC
10. Uncertainty
11. Analysis of pesticides residues
12. Method validation / Evaluation of equipment performance
13. Analysis of Aflatoxin by HPLC with immunoaffinity clean up and post column derivatisation according to EN14123:2003 method
14. Analysis of food additives
15. Food Toxicology
16. Statistics of chemical analysis
17. Humidity measurement & calibration
18. Identification of tobacco types
19. Internal auditor training
20. Temperature calibration
21. Quality control in analytical chemistry
22. Training on quality assurance/ quality control
23. Mass calibration

Laboratories (Attachment. No 4)

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs	7	8	4	5 Administration
Area (m^2)	110	340	70	

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs				
Area (m^2)				

Hazard Through Fume Hood

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Instrumentation (Attachment. No 5)
[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	**Pathogen detected**	**Samples/month**
Autoclave	Detection & Enumeration of all Micro Organism according to methods of analysis which can be carried	44/month
Incubator		
Refrigerator & Freezer		
Colony Counter		

pH meter	out in our microbiological lab.	
Stomacher		
Balance		
Distillatory		
Vortex		
Water bath		
Hot air oven		
Dispenser		
b. Detection/quantification of toxic agents	**Agents detected**	**Samples/month**
Agilant GC system 6890 U510525025	-Total content of fatty acids in oils. -detected the type of oil in tuna & sardine.	75/month 26/month
Atomic absorption Unicom 929 E494792	-determination of lead and Cadmium excretion from the ceramic ware. -determination of %PbO in crystal ware	95 glass ware. 30 ceramic/month ware/month 2 carbonated mineral water/month
Flam photometer 10043	Determination of Ni, Li, Ba, K, Ca	2 Lethe bone/month
pH meter 3510	Determination of pH in all detergent.	5/month
Spectrophotometer Milton Roy UV1201. 3702114005	Specific absorption at 270nm.	6/month
Mikron ATW-10	Efficient writing test	5/month
Automatic Kjeldahl. (quantification)	Protein%	70/month
Soxtherm. (quantification)	Fat%	75/month
Fiber Tec. (quantification)	Fiber%	80/month
UV/VIS Spectrophotometer (quantification)	TBA No.	40/month
UV/VIS Spectrophotometer (quantification)	Vanillin %	4/month
UV/VIS Spectrophotometer (quantification)	Spe. Absorbance	10/month
Karl Fisher(quantification)	Moisture%	10/month
Lovibond (Detection)	Color	10/month
Melting Point(quantification)	Melting Point	45/month
PH- Meter (quantification)	PH	55/month
Glass Kjeldahl (quantification)	TVN	55/month
Sugar Color meter	Color degree	12/month
Polax-L	Polarization degree	12/month
Refractometer	Refractive index	45/month
c. Detection of physical hazards	**Hazard detected**	**Samples/month**
Filth test	Insect fragments	50/month
Electronic balance EP 612C	Weight Up to 610 gm	448/month
Determination of Specific gravity of wheat grains apparatus-no.1	Specific gravity for wheat	75/month
Determination of Specific gravity of wheat grains apparatus-no.2	Specific gravity for wheat	
Specific gravity meter	Specific gravity for malt drink	2/month
Electronic balance sartorius	---	--
Laboratory freezer	---	--
Pharmaceutical refrigerator	---	--
Hygrothermograph Oakton	---	--
Hygrothermograph Oakton	---	--
hot plate/thermolyne	---	--
Hot plate/ PMC	---	--
Hot plate/ PMC	---	--
Microscope-TS	Microorganism	--
Microscope-nine fifty	Microorganism	--

Operating costs (Attachment. No 6)

	Maintenance	Supplies	Incentives	Notes
Amount (LE):	(Attachment. No 6)			

Miscellaneous	
- Is there a procedure for sample handling? Explain.	Sample Handling (Attachment. No 7)
- What reference material available for this lab?	(Attachment. No 8)
- How is hazardous waste disposed of?	Hazard Samples waste are autoclaved and delivered to waste treatment company, the rest of samples after testing delivered to client (Attachment. No 9)
- How are data recorded? Is there a record-keeping system?	All records are in hard copy and electronic form (Attachment. No 10)
Accreditation Certificate (Attachment. No 11)	

Attachments to be Delivered During Assessment Visit	
(Attachment No. 1)	
1.	Prime Ministerial Decree No. 1186/2003
2.	Export & Import Inspection Test Laboratories
3.	Low No. 155/2002 On Export Promotion
(Attachment No. 2)	
1.	Scope for Accreditation
(Attachment No. 3)	
1.	Qualification for Staff in Portsaid Laboratory
2.	Training Report for Staff in Portsaid Laboratory
(Attachment No. 4)	
1.	Layout of Microbiology Labs
2.	Land drawing
3.	First floor drawing
4.	Second floor drawing
5.	Third floor drawing
(Attachment No. 5)	
1.	ISO 9001:2000 Certificate for Maintenance Company
2.	List of Equipments in Chemistry Lab
3.	List of Equipments in Microbiology Lab
4.	List of Equipments in Visual Lab
5.	List of Equipments in Residue Lab
(Attachment No. 6)	
1.	Operating Cost in Dekhiella Laboratory
(Attachment No. 7)	
1.	Sample Tracking Process HD.QR.22.Q.01
2.	Traceability of Test Items HD.QP.23.Q.01
3.	Chain of Custody HD.QR.22.Q.02
4.	Handling of Equipment and Sample Inside Laboratory HD.QP.23.Q.02
(Attachment No. 8)	
1.	List of Reference Material in Chemistry Lab
2.	List of Reference Material in Residue Lab
3.	List of Reference Culture in Microbiology Lab
(Attachment No. 9)	
1.	Collection, Transport and Disposal of Bacteriological Samples HD.QP.18.Q.01
2.	Waste Management HD.QP.18.M.11.Al.
3.	Handling And Disposal of Samples in Chemistry Labs HD.WI.23.C.00.Ps
4.	Handling And Disposal of Samples in Organolyptic Labs HD.WI.23.P.00.Ps
5.	Handling And Disposal of Samples in Residue Labs HD.WI.23.R.00.Ps
(Attachment No. 10)	
1.	Document Control HD.QP.04.Q.01
2.	Control of Records and Data HD.QP.14.Q.03
(Attachment No. 11)	
1.	Scope for Accreditation
2.	ISO 9001:2000 Certificate for Maintenance Company

Appendix 9

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: The Central Health Labs **Location:** 19 EL. Shikh- Rehan St. Cairo

Date: 27/1/2008 **Visitors:** **Visitors hosts:** Dr. Wafaa Atta

Dr. Ebtisam Eid, Ch. Omima Mostafa, Dr. Samira Samwel .

En. Lucy Sidhom.

Lab type (gov., private, joint, etc.):	Governmental
Lab accreditation status:	In prossesing
- Foods or food categories most commonly analyzed to detect biological and chemical hazards	All kind of food
- Source (import, export, local, etc)	Import export, local, food poisoning
Lab authorizations	king resolution 1936 , Low No. 10 for 66

Type of Analyses Conducted: [List in the order of importance, and report frequency of sample analysis]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

	Bacteria	Viruses	Others (Parasite, fungi, algae)		
1.	Salmonella Sp.		Fungus		
2.	E.coli 0157H7		Yeast		
3.	Listeria moncytogens		Parasite in Smoked fish		
4.	Cl. Botulinum & toxin		Parasite in frozen fish		
5.	Staph. aureus coagulase +Ve		Algae in water		
6	Vibrocholira				

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

	Mycotoxins	Other biotoxins	Pesticide residues	Heavy metals	Others
1.	Aflatoxin		Organo chlorin comps	Cd	PCB'S
2.	Ochratoxin		Organo Phosphorus comps	Hg	Cyanoalanin
3.	Patuline		Carbamate comps	Pb	3MCPD
4.			Fumigant	As	Melamin
5.			Rodenticids	Cu, Fe, Zn	Acrylamid, PAH

Physical hazards

Metal	Glass	Others
Iron Dust		Insects, Toxic seeds, foreign material

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

	No. involved in these analyses:		
	Biological	Chemical	Physical
Ph.D.	1	1	
M.Sc	10	5	
B.Sc.	10	40	
Others	40	35	

Professional analytical training received in 2007
1. Training for General director management
2. Training course for analyst staff of governorates
3. Training of trainers on flow fortification
4. Work shop on basic agricultural biotechnology
5.Work shop on environmental risk assessment for GMO release

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Laboratories

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others IT	Receiving
No. of labs	11	17	All labs	4	3
Area (m^2)	290 M^2	600 M^2		100 M^2	70 M^2

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others	
No. of labs	11	17	All labs	4	3
Area (m^2)	290 M^2	600 M^2		100 M^2	70 M^2

Instrumentation

[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	Pathogen detected	Samples/month
1. PCR	Salmonella, listeris	50 / month
2. Sequencer	Salmonella, listeris	
3. 3 U.V Cabinet		
4. 3 Colony counter		
5. 4 Microscope		

b. Detection/quantification of toxic agents		Agents detected	Samples/month
1. 3 GC/MS	2 Eliza	Organic toxinc matter	1700 / month
2. 1 GC/MS/Ms	1 Flurometer	heavy metal	
3. 3 HPLC	3 GC with different detectors	Mycotoxin	
4. 5 Atomic Absorption	1 HPTLC	Toxic residues	
5. 1 SFX	1 ion chromatography		

c. Detection of physical hazards	Hazard detected	Samples/month
1.		
2.		

Operating costs at 2007

	Maintenance	**Supplies**	**Incentives**	**Others**
~ Amount ($):	327.443 LE	5.499.200 LE	1.200.00 LE	

Miscellaneous

- Is there a procedure for sample handling? Explain.
We resived the sample with scarce code NO then write down in log book and take lab NO after that the sample resaved by the lab and recoded the data of the sample on the computer system. And then the staff begin to analysis the sample with the lab No.

- What reference material available for this lab?
* The reference strains (20 strain) ***** Pesticides reference stander * PCB'S, Melamin, PAH, MCPD reference standard ***** Mycotoxin stander (B_1, B_2, G_1, G_2, M_1 Ochratoxin) ***** Heavry metals standers lead Pb, Cd, As, Cu, Fe_3, Hg, Zn.

- How is hazardous waste disposed of ? * By disinfection * By using incinerator **.**

- How are data recorded? Is there a record-keeping system?
***** We record the data manuals and computerized system / Yes Manual record kept for 5 years.

Appendix 10

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: SGS Group (Cairo) Labs. **Location: 1 Osman A. Osman St. Harranya – Haram - Giza**

Date:	**Visitors:**	**Visitors hosts:**
Thursday 24th Jan. 2008	Dr. Ahmed Youssof	Dr. Salwa Dogheim
	Dr. Fouad El-Tahan	Chemist Mahmoud Hanafy
	Dr. Ahmed Ayesh	Chemist Siham Bedeir
		Mr. Ahmed Mokhtar

Lab type (gov., private, joint, etc.) : Private

Lab accreditation status: Chemical lab. is accredited since 1999 by UKAS & NLAB

Foods or food categories most commonly analyzed to detect biological and chemical hazards

1. **Herbs and spices**
2. **Meat and Meat products**
3. **Fruit and fruit products**
4. **Vegetables and ist products**
5. **Water and waste water**
6. **Edible oil and Fat**
7. **Milk and its products**
8. **Cacao, tea**
9.

Source (import, export, local, etc) : import, export & local

Lab authorizations :

Type of Analyses Conducted: [List in the order of importance, and report frequency of sample analysis]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

	Bacteria	Viruses	Others (Parasite, fungi, algae)		
1.	Total plate count				
2.	Mold & yeast				
3.	E. Coli				
4.	Staphylococcus aureaus				
5.	Salmonella				
6	Legionella				
7	Coliform				

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

	Mycotoxins	Other biotoxins	Pesticide residues	**Heavy metals**	Others
1.				Lead	
2.				Cadmium	
3.				Copper	
4.					
5.					

Physical hazards

Metal	Glass	Others

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

	No. involved in these analyses:		
	Biological	Chemical	Physical
Ph.D.			
M.Sc	1		
B.Sc.	2	4	
Others	2	1	

Professional analytical training received in 2007
1.**Non**
2.
3.
4.
5.

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Laboratories

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs	**1**	**1**		
Area (m^2)	**120**	**200**		

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs		**1**		
Area (m^2)		**50**		

Instrumentation

[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	Pathogen detected	Samples/month
1.		
2.		
3.		
4.		
5.		

b. Detection/quantification of toxic agents	Agents detected	Samples/month
1.		
2.		
3.		
4.		
5.		

c. Detection of physical hazards	Hazard detected	Samples/month
1.		
2.		

Operating costs

	Maintenance	**Supplies**	**Incentives**	**Others**
~ Amount ($):	**10 000**	**65 000**		

Miscellaneous **28 000**

- Is there a procedure for sample handling? Explain.	**Available for chemical lab. and we are making some adaptation for this procedure to meet microbiological samples requirements**
- What reference material available for this lab?	**Not available but for test result verification we participated in SGS round robin program**

- How is hazardous waste disposed of?	**It sterilize at our lab.and sent to Omrania hospital (through agreement for disposal)**
- How are data recorded? Is there a record-keeping system?	**Yes, through SGS intranet Share point system.**

Appendix 11

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
I. Personnel and analytical capabilities

Laboratory: Sokhna			**Location:** Sokhna port		
Date:	30/01/2008	**Visitors:**	Prof. Dr. A.Yousef	**Visitors hosts:**	Eng. Samir abd el messih
			Prof. Dr. F. Eltahan		Eng. ragheb hozaien
Lab type (Gov., private, joint, etc.):			joint., ministry of trade & health		
Lab accreditation status:			Accredited DAP	DAP-PL-4076.00	
Foods or food categories most commonly analyzed to detect biological and chemical hazards			All food Categories		
			Utensils contact foods	Water	
			Soil	Plants	
Source (import, export, local, etc)			(import-export-local)		
Lab authorizations			Prime minister No 1186/2003 (Attachment. No 1)		

Type of Analyses Conducted: [microbiology-heavy metals-toxins- nutrition facts-detection of adulteration pesticide]

Biological hazards
(i.e., pathogenic species, causing food-transmitted diseases)

Bacteria	Viruses	Others (Parasite, fungi, algae)
1. Detection of Salmonella Spp (Accredited)		14. Enumeration of Yeast (Accredited)
2. Detection of Listeria monocytogenes (Accredited)		15. Enumeration of mould
3. Enumeration of Total Bacterial Count (Accredited)		
4. Enumeration of E-coli (Accredited)		
5. Enumeration of Staph aureus (Accredited)		
6. Enumeration of Coliform (Accredited)		
7. Enumeration of Fecal Coliform (Accredited)		(Attachment. No 2)
8. Enumeration of Enterobacteriace(Accredited)		
9. Detection of Vibrio Spp		
10. Enumeration of Clostridium perfren.		
11. Enumeration of sulfite reducing bact.		
12. Enumeration of Enterococcus fecalis		
13. Enumeration of Bacillus cereus		

Chemical hazards
(i.e., chemicals with known toxicity or carcinogenicity, causing food-transmitted diseases)

Mycotoxin	Other biotoxins	Pesticide residues	Heavy metals	Others
1. Aflatoxin B1 and the total of Aflatoxins B1,B2,G1,G2 in nuts by HPLC (Accredited)		2. Under development in Fatty and non fatty Foods	3. Determination of Lead, and Cadmium in Ceramic and glass Ware (Accredited)	4. Fatty Acids Composition in Edible Oils (Accredited)
	(Attachment. No 2)		5. Determination of Lead, Cadmium, Copper, Zinc, and Iron in Foods& Plants(Accredited)	6. Spectrophotometric investigation in the ultraviolet (Quality of olive oil) (Accredited)
			7. Determination of Magnesium in Foods & Plants	8. Moisture (Accredit)
			9. Determination of Density, Specific Gravity, PH at 20 °C, Conductivity, Carbonate, Bicarbonate, TDS,	10. Fiber(Accredited)

			Nitrate, Hardness, Chloride, Sulfate, Cadmium, Lead, Turbidity, Nitrite, Ammonium, Phosphate in Water	
				11. Fat (Accredited)
				12. Nitrogen (Accredited)
				13. Ash(Accredited)
				14. Solids in syrups (Accredit)
				15. T.V.N in marine product(Accredited)
				16. Index of Refraction of oils (Accredit)
				17. Alkalinity Ash, Acid insoluble Ash, water soluble ash, Water Extract, (iron) filings
				18. Peroxide,Acidity number, Saponification number
	(Attachment. No 2)			19. Acidity
				20. Pig fat
				21. Sucrose
				22. T.B.A, Triamine nitrogen, salt, sodium chloride, Potassium iodate, Polarity degree, colour in sugar
				23. Thiobromine, Lactose

Physical hazards

Metal	Glass	Others
1. Filth test	2. Filth test	Impurities, Color, Taste, Smell and Net weight

Personnel: [Trained & directly involved in analysis of food for the hazards described above]

No. involved in these analyses:			
	Biological	Chemical	Physical
Ph.D.			
M.Sc		1	1
B.Sc.	3	9	6
Others		2	

(Attachment. No 3)

Professional analytical training received in 2007
1. General rules for microbiology
2. PCR Techniques and applications
3. Minitab Program Of Statistical Analysis
4. Analysis of drinking water
5. ISO 17025/2005
6. Analysis of fumigants residues in grains
7. Gas Chromatography
8. High Performance Liquid Chromatography HPLC
9. High Performance Thin Layer Chromatography HPTLC
10. Uncertainty
11. Analysis of pesticides residues
12. Method validation / Evaluation of equipment performance
13. Analysis of Aflatoxins by HPLC with immunoaffinity clean up and post column derivatisation according to EN 14123:2003 method

(Attachment. No 3)	14. Analysis of food additives
	15. Food Toxicology
	16. Statistics of chemical analysis
	17. Humidity measurement & calibration
	18. Identification of tobacco types
	19. Internal auditor training
	20. Temperature calibration
	21. Quality control in analytical chemistry
	22. Training on quality assurance/ quality control
	23. Mass calibration

Laboratories (Attachment. No 4)

a. space dedicated to analyses for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs	5	5	1	5 administration
Area (m^2)	350	350	70	5

b. Space occasionally/partially used to analyze for hazards in food (i.e., food safety)

	Biological	Chemical	Physical	Others
No. of labs	4	5	1	
Area (m^2)	350	350	70	

All labs under HVAC control - HEPA filters in 4 Microbiology Labs

TAPR-II
Laboratory Group, lab visits (Jan & Feb 2008)
II. Facility and Resources

Instrumentation (Attachment. No 5)
[List the most significant instruments used in food safety, and report frequency of sample analysis on each]

a. Detection/quantification of pathogens	**Pathogen detected**	**Samples/month**
Autoclave	Salmonella	candy 100/month
Colony Counter	Listeria monocytogenes	dairy 15/month
Data Logger	Total Bacterial Count	marine 50/month
Freezers	E-coli	Juices 20/month
Incubators	Staph aureus	
Oven	Coliform	
Balances	Fecal Coliform	
Conductivity/PH	Enterobacteriace	
Distillator	Yeast	
Hot Plates	Enterococcus fecalis	
Laminar Flow	mould	
Refrigerators	sulfite reducing bacteria	
b. Detection/quantification of toxic agents	**Agents detected**	**Samples/month**
AAS-GF, ICP	Pb, Cd, Hg	300/month
HPLC,	Toxins	50/month
FTIR HPTLC	inorganic	50 /month
GLC mass (FID-FPD-ECD)	Nutrition, pesticide	50 /month
UV/VIS spectro	Quality of fats	50 /month
c. Detection of physical hazards	**Hazard detected**	**Samples/month**
Filth test	Insect fragments	50/month

Operating costs (Attachment. No 6)

	Maintenance	Supplies	Incentives	Notes
Amount (LE):	1.8	2	17 million	Attachment XII

Miscellaneous

- Is there a procedure for sample handling? Explain.	Sample Handling (Attachment. No 7)
- What reference material available for this lab?	(Attachment. No 8)
- How is hazardous waste disposed of?	Hazard Samples waste are autoclaved and delivered to waste treatment company, the rest of samples after testing delivered to client

	(Attachment. No 9)
- How are data recorded? Is there a record-keeping system?	All records are in hard copy and electronic form (Attachment. No 10)
Accreditation Certificate (Attachment. No 11)	

Attachments to be Delivered During Assessment Visit	
(Attachment No. 1)	
1.	Prime Ministerial Decree No. 1186/2003
2.	القرارات الصادرة ببحث أحتياجات تشغيل ميناء العين السخنة
3.	مذكرة تفاهم بشأن تحديد العلاقة بين الهيئة العامة للرقابة على الصادرات و الواردات و شركة تنمية ميناء السخنة
4.	Export & Import Inspection Test Laboratories
(Attachment No. 2)	
1.	Accreditation Certificate from DAP (with scope)
2.	Scope of Accreditation for Microbiology Lab
3.	Scope of Accreditation for Chromatography Lab
4.	Scope of Accreditation for Trace Element Lab
5.	Scope of Accreditation for Chemistry Lab
(Attachment No. 3)	
1.	Master list of qualification and training
2.	Curriculum vite for All Laboratory Staff
(Attachment No. 4)	
1.	Lab Drawing
(Attachment No. 5)	
1.	List of Equipments with Maintenance and Calibration Status
2.	ISO 9001:2000 Certificate for Maintenance Company
(Attachment No. 6)	
1.	Operating Cost in Sokhna Laboratory
(Attachment No. 7)	
1.	Chain of Custody EM.WI.22.R.01
2.	Chain of Custody EM.WI.22.Rt.02
3.	Flow chart of Sample by Electronic System EM.WI.23.DR.05
4.	Adequate sample handling EM.WI.23.DR.02
5.	Sample Retention EM.WI.23.DR.06
6.	Performing Bar Coding System EM.WI.23.DR.07
7.	Flow Chart of The Sample & Chain Of Custodian
(Attachment No. 8)	
1.	List of Reference Culture in Microbiology Lab
2.	List of Reference Material in Chromatography Lab
3.	List of Reference Material in Trace Element Lab
4.	List of Reference Material in Chemistry Lab
5.	Store of Reference Material & Reference Culture & Chemicals
(Attachment No. 9)	
1.	Collection, Transport and Disposal of Bacteriological Samples EM.QP.18.Q.01
2.	EM.WI.22.Rt.01 التخلص من بواقى العينات
3.	Service Contract with Tanzifco International Company
(Attachment No. 10)	
1.	Document Control EM.QP.04.Q.01
2.	Control of Records and Data EM.QP.14.Q.03
3.	Flow Chart of Sample by Electronic System EM.WI.23.DR.05
(Attachment No. 11)	
1.	Accreditation Certificate from DAP with Final Scope

DAP Deutsches Akkreditierungssystem Prüfwesen GmbH

Signatory to the Multilateral Agreement of EA for Mutual Recognition
and to the Mutual Recognition Arrangement of ILAC

represented in the

Deutscher AkkreditierungsRat

Accreditation

The DAP Deutsches Akkreditierungssystem Prüfwesen GmbH herewith confirms that the

Sokhna Port Development Company

Sokhna Port - Ain El Sokhna
Suez
EGYPT

with its

Sokhna Port Laboratory

for its

**Chemical and physical chemistry,
trace element, chromatography,
microbiological and R&D laboratories**

is competent under the terms of ISO/IEC 17025:2005 to carry out tests in the fields of

selected chemical, physical-chemical and microbiological analysis of food stuff, water, animal feeding stuff, plant materials and non-food products in contact with foods

n accordance with the test methods listed in the annex.

The accreditation is valid from 2007-09-25 to 2011-06-13.

The annex forms part of the certificate and comprises 3 pages.

DAR registration number: **DAP-PL-4076.00**

Berlin, 2007-09-25

p.p. Valbuena

Univ.-Prof. Dr.-Ing. habil. K. Ziegler
Managing Director
DAP Deutsches Akkreditierungssystem
Prüfwesen GmbH

DAP Deutsches Akkreditierungssystem Prüfwesen GmbH

Annex to the Accreditation Certificate DAP-PL-4076.00
Accreditation based on ISO/IEC 17025:2005

Period of validity: 2007-09-25 to 2011-06-13

Holder of the certificate: **Sokhna Port Development Company**

Sokhna Port - Ain El Sokhna
Suez
EGYPT

with its

Sokhna Port Laboratory

for its

**chemical and physical chemistry,
trace element, chromatography,
microbiological and R&D laboratories**

Tests in the areas: **selected chemical, physical-chemical and microbiological analysis of food stuff, water, animal feeding stuff, plant materials and non-food products in contact with foods**

abbreviations used: see last page

1 Selected chemical and physical-chemical tests in food and plant material

ISO 5509 2000-04	Animal and vegetable fats and oils - Preparation of methyl esters of fatty acids
ISO 5508 1990-09	Animal and vegetable fats and oils - Analysis by gas chromatography of methyl esters of fatty acids
AOAC Official Method 991.36 2005	Determination of Fat in Food Stuff
AOAC Official Method 932.14 2005	Solids in Syrups

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AOAC Official Method 921.08 2005	Index of Refraction of Oils and Fats
AOAC Official Method 950.46 2005	Moisture in Meat
AOAC Official Method 923.03 2005	Ash of Flour
AOAC Official Method 991.20 2005	Nitrogen (Total) in Milk *(Here also applicable for other food stuffs)*
AOAC Official Method 962.09 2005	Fiber (Crude) in Animal Feed and Pet Food Ceramic Fiber Filter Method
ES 2760-1 2006	Physical and chemical methods for testing fish and fishery Products - Part 1: Frozen fish Determination of total volatile nitrogenous basis
IOOC-Method COI/T20/Doc.No.19/Rev. 1 2001	Quality of olive oil: Spectrophotometric Investigation in the Ultraviolet
DIN EN 14123 2003-09	Determination of Aflatoxin B1 and the sum of aflatoxin B1, B2, G1 and G2 in peanuts, pistachios, figs and paprika powder *(Here only for nuts)*
AOAC Official Method 999.11 2005	Lead, Cadmium, Copper, Iron and Zinc in Foods - Atomic Absorption Spectrophotometry
AOAC Official Method 975.03 2005	Metals in Plants and Pet Foods Atomic Absorption Spectrophotometry *(Here: Determination of iron, copper, zinc, magnesium, lead and cadmium in plant materials)*

2 Selected microbiological tests

ISO 4832 2006-02	Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coliforms - Colony-count technique
ISO 21528-2 2004-08	Horizontal method for Enumeration of Enterobacteriaceae Part 2: Colony Count method
ISO 4833 2003-02	Horizontal method for Enumeration of Micro-organisms Colony Count technique at 30 °C

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ISO 21527 2001-12	Horizontal method for Enumeration of Yeast and Moulds Colony Count technique *(Here only determination of yeasts)*
ISO 21527 (Modified) 2001-12	Horizontal method for Enumeration of Yeast & Moulds Colony Count technique *(Here only determination of yeasts, modification: 3 days, 30 °C)*
NMKL No. 125 3rd edition 1996	Thermotolerant coliform bacteria enumeration in foods
ISO 6579 2002-07	Horizontal method for the detection of salmonella spp.
ISO 11290-1 1996-12 DAM 1:2002	Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of *Listeria monocytogenis* - Part 1: Detection method
ISO 6888-1:1999 FDAM 1:2003	Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coagulase-positive staphylococci *(Staphylococcus aureus* and other species) - Part 1: Technique using Baird-Parker agar medium; Amendment 1: Inclusion of precision data
EM.QP.19.M.66 2005-08	Enumeration of *Escherichia coli* in Foods (based on NMKL Method No. 125)

3 Determination of metal release from ceramics

ES 2060 2005	Permissible Limits of Lead and Cadmium Release from Ceramic Ware, Glass Ceramic Ware in Contact with Food Part (1): Glass Ware (based on ISO 7086 Part 1 and 2: 2000) Part (2): Ceramic Ware (based on ISO 6486:1999)

abbreviations used:

AOAC	Association of Official Analytical Chemists
ES	Egyptian Standard
ISO	International Organization for Standardization
IOOC	International Olive Oil Council
DAM	Draft ammendment
FDAM	Final draft ammendment
NMKL	Nordic Committee on Food Analysis
EM.QP.XYZ	In-house method procedure
EM.WI.XYZ	In-house work instruction

DEUTSCHES
AKKREDITIERUNGSSYSTEM
PRÜFWESEN GMBH

DAP GmbH • Ernst-Augustin-Straße 15 • 12489 Berlin

Sokhna Labs
Mr. Khaled Hanafy
Sokhna Port
Ain El Sokhna
Suez

EGYPT

Your Ref.	Our Ref.	Extension	E-Mail	Date
	NIC	-53	nickel@dap.de	2007-10-08

Dear Mr. Hanafy,

Accreditation DAP-PL-4076.00

Attached you will find two copies of the Accreditation Certificate and the annex.

This accreditation demonstrates technical competence for a defined scope and means that the laboratory operates a management system which complies with the principles of ISO 9001:2000 and is aligned with all its pertinent requirements (refer joint ISO-ILAC-IAF Communiqué dated 18 June 2005).

Yours sincerely,

Angela Nickel

for DAP Angela Nickel
Case Manager

DAP Deutsches Akkreditierungssystem Prüfwesen GmbH

Signatory to the Multilateral Agreement of EA for Mutual Recognition
and to the Mutual Recognition Arrangement of ILAC

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**Chemical and physical chemistry,
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microbiological and R&D laboratories**

is competent under the terms of ISO/IEC 17025:2005 to carry out tests in the fields of

selected chemical, physical-chemical and microbiological analysis of food stuff, water, animal feeding stuff, plant materials and non-food products in contact with foods

n accordance with the test methods listed in the annex.

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Berlin, 2007-09-25

p.p. Vallbrem

Univ.-Prof. Dr.-Ing. habil. K. Ziegler
Managing Director
DAP Deutsches Akkreditierungssystem
Prüfwesen GmbH

DEUTSCHES AKKREDITIERUNGSSYSTEM PRÜFWESEN GMBH
DAP
EA IAF ILAC
MITGLIED

DAP German Accreditation System for Testing (hereinafter referred to as DAP), is signatory to the Multilateral Agreement for Testing Laboratories (MLA) of European co-operation for Accreditation (EA) and to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Co-operation (ILAC). For testing laboratories, EA concluded further bilateral agreements for mutual recognition.
The signatories to these agreements of the following countries mutually recognise their accreditations of testing laboratories:

Argentina – Australia – Austria – Belgium – Brazil – Canada – People's Republic of China – Cuba – Czech Republic – Egypt – Denmark – Estonia – Finland – France – Germany – Greece – Hong Kong, China – India – Indonesia – Ireland – Israel – Italy – Japan – Republic of Korea – Latvia – Lithuania – Malaysia – The Netherlands – New Zealand – Norway – Poland – Portugal – Romania – Singapore – Slovakia – Slovenia – South Africa – Spain – Sweden – Switzerland – Chinese Taipei – Thailand – Turkey – United Kingdom – USA – Vietnam.

The up-to-date status of membership can be retrieved from the respective website:
EA - http://www.european-accreditation.org
ILAC - http://www.ilac.org

This accreditation has been awarded on the basis of an assessment and pursuant to the contract concluded with DAP with respect to the accreditation of a testing laboratory in accordance with the rules and procedures of the German Accreditation System in conformity with the Standards DIN EN ISO/IEC 17025 and DIN EN ISO/IEC 17011.

The requirements in terms of materials and personnel as specified in DIN EN ISO/IEC 17025 for the specific testing fields indicated in the accreditation certificate, as well as for the procedures described in the annex to the accreditation certificate, have been met.

Details of the scope of the accreditation (testing fields, procedures and specifications) are given in the annex to this accreditation certificate.

The annex and the documents submitted in connection with the accreditation are deemed to form an integral part of it. Any amendments are to be made in writing.

The accreditation is awarded subject to revocation at any time due to the fundamental change or lapse of any conditions defined in the agreement and in the annex to this accreditation certificate.

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