Russell, Merlin

From: Stuart Stapleton <Stuart.Stapleton@eqonline.com>
Sent: Thursday, February 06, 2014 10:14 AM
To: Russell, Merlin
Cc: Gene Cieply; Ken Dean; 'Jerry Kubal <Jerry.Kubal@kci.com> (Jerry.Kubal@kci.com)'; Christopher Poole
Subject: WAP Revision
Attachments: EQFL WAP Rev 02 2-6-14.pdf; WAP Transmittal Letter 2-6-14.pdf

Merlin,

Attached is the revised WAP. Also is a transmittal letter explaining the revisions. Please let me know if you need anything else.

Stuart Stapleton
EHS Manager

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February 6, 2014

Merlin D. Russell Jr.
Professional Geologist II
Hazardous Waste Program & Permitting, Room 330G
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2600

Re: EQ Florida Waste Analysis Plan Revisions

Dear Mr. Russell:

Attached is a revised Section 4.0 Waste Analysis Plan (Rev. 02, February 2014) for EQ Florida's Hazardous Waste permit application. Because the facility will be accepting explosives in the proposed reactives magazine, the waste analysis plan has been revised to remove reference to materials EQFL does not accept. These revisions include: (1). Section 4.6, Page 36, the former reference to regulated explosives has been removed; and, (2) Section 4.11.2, Page 40, the former reference to unacceptable regulated explosive lab packs has been removed.

Please call me at 813-319-3410, or email me at gene.cieply@eqonline.com if I can answer any questions after you've had a chance to review this material.

Sincerely,

Gene Cieply
General Manager

4.0 WASTE ANALYSIS PLAN

4.1 Introduction

In accordance with the regulatory requirements set forth in 40 CFR 264.13 (b) and 40 CFR 268.7, EQFL has developed this Waste Analysis Plan (WAP). The procedures set forth in this plan ensure that this facility will be in compliance with all the requirements of 40 CFR 264.13 and 268.7. A copy of the current plan will be available at the facility.

The purpose of this Waste Analysis Plan (WAP) is to identify and document the necessary sampling methods, analytical techniques and overall procedures that are undertaken for hazardous wastes that enter this facility for treatment or storage. As appropriate, the EQFL facility will utilize as guidance the following EPA January 2013 draft document entitled: "Waste Analysis at Facilities That Generate, Treat, Store and Dispose of Hazardous Wastes: A Guidance Manual." In addition, EQ has a number of SOPs used internally and these are included in Appendix J (of Volume 2 of 3).

The EQFL WAP describes the following:

1. Pre-Acceptance Procedures—Used to determine the acceptability of a particular waste stream pursuant to facility permit conditions and operating capabilities prior to shipment of that waste to the facility.
2. Incoming Waste Shipment Procedures—Used to identify that the delivered waste shipment matches the accompanying manifest, as well as the pre-acceptance description (the profile), and the conditions of the facility permit.
3. Sampling Methods—Used to ensure that adequate quality control (QC) waste identification samples are properly obtained.
4. Analytical Techniques—Used to verify that the waste received at the facility conforms to the properties and characterization approved on the waste profile form so that the appropriate treatment or storage techniques can be utilized.
5. Operational Procedures—Used to maintain safe and appropriate methods of storage, treatment and ultimate outbound shipment of wastes.

All RCRA-regulated wastes treated or stored at the facility will be handled in accordance with the Waste Analysis Plan procedures. Non-RCRA regulated waste is, by definition, not regulated by RCRA. Non-RCRA regulated waste will be managed at the facility. This will not interfere with the management of hazardous waste at the facility. It is EQFL's policy to screen non-RCRA regulated waste for hazardous characteristics utilizing the EQFL WAP. This is to ensure that the facility will be in compliance with all applicable permits and regulations to properly, safely manage all waste.

All forms shown within this WAP are typical forms currently used by the facility. These forms may change or be updated to equivalent forms as regulations, customer needs, operations or company policy dictates. Updated copies of all forms outlined in this plan will be provided to the FDEP as these are put into use by the facility.

4.2 Pre-Acceptance Procedures

EQFL has developed procedures to determine the acceptability of specific wastes for management at the facility in accordance with safe storage, treatment and all prohibitions on Land Disposal (40 CFR Part 268). The pre-acceptance procedures dictate what information a potential customer will provide to enable EQFL to determine the acceptability of the waste for treatment, storage and ultimate off-site disposal. The

Pre-Acceptance Procedure is the mechanism for deciding to reject or accept a particular type of waste, prior to its shipment to the facility, based upon the conditions or limitations of existing permits, applicable land disposal restrictions and its compatibility with other wastes being treated and stored, at the facility. EQFL operations, technical, and field personnel are trained annually in completing waste profiles, DOT regulations (hazard classes, shipping names, and more) manifesting, and Land Disposal Restrictions (LDR).

The procedures listed below are utilized to review information and approve or reject waste prior to delivery to the facility.

1. The generator will provide EQFL with a completed Waste Profile form. A copy of the current EQFL Waste Profile is included in Appendix J. The completed profile provides the following information:
   - General Information
   - Physical Characteristics
   - Chemical/Physical Composition
   - Characteristic Constituents
   - Reactivity & Other Hazards
   - Hazardous Characterization
   - Shipping Information
   - Certification

   At a minimum, the generator supplies all the information needed to treat, store, or dispose of the waste as required by 40 CFR Part 264.13(a)(1).

2. The generator will provide EQFL with a representative sample, if requested. A copy of the current EQFL Sample Chain of Custody form is included in Appendix J (Volume 2 of 3).

3. The generator will provide EQFL with other supporting documentation, which may include Material Safety Data Sheets (MSDS), laboratory analysis, and any information concerning Land Disposal Restrictions (LDR) of 40 CFR Part 268. A completed Land Disposal Restriction (LDR) form will describe the LDRs that apply to the waste. A copy of the current Land Disposal Restrictions form is included in Appendix J (Volume 2 of 3). This form was recently updated to include the new Phase IV LDR regulations.

4. EQFL will review information presented on the Profile, Toxicity Characteristic (TC) Certification, analytical data supplied by the generator, MSDSs, SDSs and other applicable documentation as supplied by the generator for:
   - Completeness
   - Process producing waste
   - Chemical constituents of waste
   - Analytical results (minimum TC certification)
   - Land Disposal Restrictions requirements

5. EQFL will determine the acceptability of the waste based on:
   - The permit conditions for the facility
   - Facility operational requirements
   - The compatibility of the waste being consolidated or treated

- The status of waste under current Land Disposal Restrictions
- The available on-site treatment capabilities
- The available off-site recycling, reclamation, treatment or disposal options

6. The pre-acceptance evaluation will be recertified biennially at a minimum. Recertification or pre-acceptance evaluations will be done when any of the following occur:
   - Biennially (every two years)
   - Waste Generation Process Changes
   - Waste Analyses or Screening Changes
   - Regulatory Changes Related to Waste Analysis

7. EQFL may perform necessary annual analysis, dependent on the particular waste stream characteristics, from a representative sample of the waste received to ensure that the initial analysis is accurate and up-to-date.

8. Samples may be requested when the situation is warranted, such as for waste requiring treatment by solidification in order to perform solidification evaluation testing.

Note: Laboratory Packaged (Lab Pack) wastes are the exception to the above procedures. Lab pack procedures are discussed in the lab pack section of the WAP.

4.3 EQFL Technical Services

Approval chemists (or equivalent) are responsible for the pre-acceptance evaluation decision (i.e., whether to accept for storage, treatment, and off-site disposal or reject the waste). The approval chemist or coordinator reviews the profiles for general information, physical characteristics, chemical/physical composition, characteristic constituents, reactivity/other hazards, hazardous characterization, shipping information, and certifications. The chemist or coordinator also reviews the process producing the waste, waste description, EPA waste code identifications, and chemical constituents to determine the facility's ability to safely and properly manage the waste for storage, treatment, and ultimate disposal.

Problems with the profile sheet form encountered during the evaluation process, such as EPA waste codes that do not correspond with the process producing waste statement, chemical constituents that do not correspond with analytical data supplied, or analytical data that does not confirm treatment standards have been met for land disposal restricted waste (when applicable), are noted by approval personnel. An attempt to resolve discrepancies will be made by contacting the generator for additional information, documentation or analytical data. Discrepancies that cannot be resolved will result in the rejection of the waste profile. A Technical Services Manager or equivalent is available to review approval and rejection decisions if necessary.

The pre-acceptance evaluation is concluded with the final decision regarding the acceptability of the waste. Storage, treatment and disposal decisions are based on (but not limited to):

- Conditions or limitations of existing permits and regulations
- Capability to safely manage the waste
- Regulatory requirements
- Results of compatibility evaluation or treatability tests (as appropriate)
- Management decision

4.3.1 Waste Characterization

Indicated below are the waste characterizations of the various waste streams managed at the treatment/storage and transfer facilities. Actual waste analysis information (if available), waste profile information, supporting lab analytical, QC lab reports, manifests, land ban forms, and the EQFL computer data base information will be retained as part of the facility operating record.

Flammable Liquids

Physical State:	Liquid
Flash Point:	<140 F
Chemical Composition:	Solvents, paints, thinners, alcohols, fuels, oils, etc.
Disposal:	Disposal is off-site via fuel blending and/or incineration.
Other Data:	Facility warehouse storage is in an explosion-proof designed area. Vehicles are placarded and meet all DOT requirements.

Oxidizers/Reactives/Flammable Solids

Physical State:	Liquid/Solid/Semi-Solid
Chemical Composition:	Oxidizers: permanganates, nitrates, nitrites, perchlorates, etc. Reactives: cyanides, sulfides, and water-reactive metals Flammable Solids: water-reactive metals, phosphorous, paint sludges, and solid residues.
Disposal:	Disposal is off-site via deactivation or incineration.
Other Data:	Cyanides and sulfides must be kept separate from acids. Oxidizers must be kept separate from organics. Flammable solid/water reactives must be kept dry and usually immersed in kerosene.

Poisons

Physical State:	Liquid/Solid
Chemical Composition:	Arsenics, carbamates, endrin, lindane, toxaphene, methoxychlor, etc.
Disposal:	Disposal is off-site via incineration.
Other Data:	May be an inhalation hazard.

Corrosives

Physical State:	Aqueous
pH:	Acids: 2.0 Caustics: 12.5
Chemical Composition:	Acids: Hydrochloric, nitric, chromic, phosphoric, sulfuric, etc. Caustics: Sodium hydroxide, potassium hydroxide, etc.
Disposal:	Disposal is off site via neutralization. Alternately, some, or all, of the acceptable materials may be treated in the to-be-constructed treatment tank in the waste processing building and disposed of at a subtitle D landfill once decharacterized, meets LDRs and passes the PFT.
Other Data:	Keep acids and caustics separated from each other and do not add water to acids or caustics.

Characteristic and Others

Physical State:	Liquid/Solid/Sludge
Chemical Composition:	Listed plating sludges, toxic metals (chrome, lead, etc.), D018-43 TC wastes.
Disposal:	Disposal is off site via stabilization, incineration, or landfill. Alternately, allowable waste codes may be treated in the-to-be constructed treatment tank and disposed of at a Subtitle D facility once decharactedized, meets LDRs and passes the PFT.

4.4 Sampling Methods

Sampling is performed at the facility by EQFL personnel trained to sample incoming materials. The training includes personal protective equipment, sampling requirements, sampling equipment, and sampling techniques. All sampling personnel are HAZWOPER trained and are expected to follow appropriate health and safety procedures during all sampling and analysis activities. Based on generator knowledge of the waste to be sampled, health and safety procedures will be implemented to assure worker safety. These measures include wearing appropriate safety glasses, gloves and protective clothing or apron when collecting or handling samples

Specific sampling procedures are dependent on both the nature of the material and the type of container. This section presents sampling methods to be utilized by EQFL personnel. The generator provides EQFL with information concerning the concentration, as well as the nature of the waste components on the profile sheet form. The analysis to be performed is a conformance check. Sampling protocols will follow approved sampling methods.

The sampling equipment and procedures described in this Waste Analysis Plan represents the facility's recommended sampling protocol for general types of waste materials and containers. Certain waste materials or containers may require different sampling procedures or equipment. Procedures and equipment may be updated and revised as new equipment or procedures become available. In general, the methods utilized for sampling correspond to those referenced in 40 CFR 261, Appendix I. The general sampling methods and the equipment utilized for waste materials are presented in the Sampling Methods and Equipment Table which follows.

In addition to ASTM, FDEP and EPA sampling procedures, EQFL has instituted specific methods for ensuring that samples taken from various types of containers are representative. The types of containers to be sampled at the facility vary, but usually are 55-gallon steel drums. Containers may consist of pails, drums, overpacks, totes, tankers, roll-off boxes, the hazardous waste treatment tank, or other DOT approved containers. The sampling devices are selected, depending on the size and type of containers and on the specific material involved.

Access to a container (e.g., barrel bungs) influence the location within the container from which samples can be taken. Every effort to achieve representative samples will be taken. Sampling of small containers (e.g., drums and pails) varies with the nature of the waste material. For flowable materials, the sampling device of choice is a Coliwasa unit, tubing or sample rods, to draw a full vertical section. For non-flowable wastes, tubing or a trier is normally used to obtain a sample. Table 4-1 shows sampling methods and equipment. As appropriate, the FDEPs SOPs (SOP) FS 5000 will be used to supplement the methods and equipment specified in Table 4-1.

Table 4-1
SAMPLING METHODS AND EQUIPMENT

Material	Method	Equipment	Sample Container
Extremely viscous	ASTM D140-70, E300 (a)	Tubing (b) or thief	Plastic/Glass jar w/screw top
Crushed or powdered material	ASTM D364–75, E300 (a)	Tubing (b), trier, scoop, or shovel	Plastic/Glass jar w/screw top
Soil material	ASTM D420-69, E300 (a)	Tubing (b), trier, auger, scoop, or shovel	Plastic/Glass jar w/screw top
Soil-like material	ASTM D1462.65, E300 (a)	Tubing (b), trier, auger, scoop, or shovel	Plastic/Glass jar w/screw top
Fly ash-like material	ASTM D2234–76 (a)	Tubing (b), trier, auger, scoop, or shovel	Plastic/Glass jar w/screw top
Containerized Liquids	SW–846 (c) ASTM E300 (a)	Coliwasa or tubing (b) or sampling rod	Plastic/Glass jar w/screw top

NOTES:
(a) ASTM International. Annual Book of ASTM Standards. Philadelphia, PA. 1982 or most recent edition.
(b) Personal Protection and Safety Training Manual (Cincinnati, OH: USEPA National Training and Operational Technology Center 1981), pp. 3-1 and 3-4.
(c) U.S. Environmental Protection Agency. SW-846-Test Methods for Evaluating Solid Waste. Office of Solid Waste and Emergency Response, Washington, D.C., Third Edition 2009 or most recent edition.

Liquids in large containers are sampled with a Coliwasa, tubing, or sample rod to obtain a vertical section. A composite sample is obtained by taking equal volumes from each applicable port and mixing in a common container. Light, dry powders, granules and heavier solids are sampled by trier or shovel, or by coring with heavy tubing or an auger.

Sampling equipment will be decontaminated by scrubbing with a solution of Alquinox or similar material followed by a distilled water rinse. The sampling equipment will then be allowed to air dry and any further manufacturer recommended maintenance will be performed. The rinsate collected during decontamination will be containerized and will be added to the next batch of like material to be treated. Because the material will have been decharacterized and meets LDRs, it will no longer be hazardous and accumulation start dates are not applicable. A further option would be to decant the liquids and dispose of those as wastewater and to treat the accumulated sediments as solid waste in the solid waste treatment unit.

Sampling strategy and techniques are described in more detail in the Treatment Tank Section 12.0. The integrity of samples collected for internal EQFL analyses will be documented on the internal chain of custody form contained in Appendix J (Volume 2 of 3). Samples intended for confirmatory analyses by

an independent off site laboratory will be packed and shipped in laboratory provided containers along with proper chain of custodies provided by the laboratory.

4.5 Analytical Rationale

Analyses are performed on selected incoming wastes by EQFL to verify conformance with the approved profile. Analytical methods are classified as "Fingerprint Analyses," "Additional Analyses" and "Supplemental Analyses." This arrangement allows a progressive decision approach to waste identification enabling EQFL to analyze and to adequately identify the waste and to provide operational controls for the various treatment processes as well as compatibility determinations. In addition, a minimum of 10 percent (considered an industry norm) of all waste received will be Quality Assurance (QA) checked for accuracy of classification. Any sample failing the 10% QC screen will be further analyzed in detail for the particular parameter(s).

All incoming waste shipments are subjected to the "Fingerprint Analyses." "Fingerprint Analyses" are sufficient to properly verify that the waste received is the same as the waste that was characterized and identified on the pre-acceptance evaluation (waste profile). This is not designed to characterize the waste. EQFL may perform other "Additional Analyses" or "Supplemental Analyses" to provide further verification of waste characterization. "Additional Analyses" and/or "Supplemental Analyses" are performed at the direction of the Facility Management to further identify a waste or to make certain proper handling and treatment can be achieved. EQFL management may select these additional and/or supplemental analyses to perform the annual analysis, when fingerprint analyses indicate non-conformance or to provide additional operational control and compatibility determinations. A summary of the analytical parameters within each category and their use is provided below

4.5.1 Fingerprint Analyses

The "Fingerprint Analyses" include six screening procedures that may be performed to provide a general identification of the waste received. These analyses provide the basis for the conformance check against the profile and manifest in confirming the identity of the waste. Based on a review of the Waste Characterization Report and a visual examination of the waste, the following fingerprint analyses may be performed based on the observations. The parameters and associated rationale of the six "Fingerprint Analyses" are as follows:

1. Physical Description (i.e. appearance, physical state, layers, etc.) is used to determine the general physical properties of the waste. This facilitates subjective comparison of the sampled waste with prior waste descriptions or samples. It is used to identify obvious differences in waste type. It is also used to identify the presence or absence of free liquid.
2. The pH Screen is undertaken to indicate the pH and, in general, the corrosive nature of the waste. The pH Screen will also aid in the compatibility determinations. pH may not apply to certain waste types (e.g., organic solvent waste, oil waste, or insoluble solid waste).
3. Water Mix is used to determine whether the waste has a potential to vigorously react with water to form gases or other products and to indicate whether it generates extreme heat when mixed with water. This test does not apply to wastes that are already in contact with excess water, or for which sufficient analytical data exist that indicate no potential reactivity with water.
4. Flammability Potential Screen is used to indicate the ignitability potential of the waste. It is also used to identify obvious differences in waste type, such as waste solvent

substituted for a waste acid. This test can be applied to all waste liquids, semi-solids, or solids.

5. Organic Halogen Screen is used to indicate whether or not halogenated organics are present in the waste and the need for further analysis. It is also used to identify obvious differences in waste type such as waste solvent substituted for a waste acid. This test can be applied to all waste liquids, semi-solids, or solids. The Organic Halogen Screen will be used for wastes where halogen information is necessary. For example, hazardous wastes carrying halogen waste codes would not require this screen since it would not provide any useful information.
6. Oxidizer Screen is used to indicate whether or not the waste is a potential oxidizer. No EPA test method exists for identifying oxidizers. 40 CFR 261.21(a)(4) identifies oxidizers as defined in 49 CFR 173.151 by DOT. The DOT test involves igniting the material and a known oxidizer for comparison testing. The EQFL Oxidizer Screen will not involve igniting oxidizers. The EQFL Oxidizer Screen will be utilized to screen potential oxidizers. For example, obvious organic wastes would not require this screen since they cannot be oxidizers.

4.5.2 Additional Analyses

The applicability of these analyses as described below, are based on procedures and protocol formulated by EQFL (when determined necessary for proper classification):

1. Solidification Evaluation Test is run to determine whether the waste is amenable to solidification and to determine the ratio of solidification reagent-to-waste required to effect solidification.
2. Land Disposal Restriction (LDR) Stabilization Evaluation Test is run to demonstrate whether or not a Land Disposal Restricted Waste can be stabilized to meet the appropriate treatment standard.
3. Oxidizer Screen is used to determine the presence of organic peroxides or inorganic oxidizers. It is not required if the waste is not suspected of being an oxidizer.
4. Cyanide Screen is used to indicate whether the waste has the potential to produce hydrogen cyanide upon acidification. It is not required if the pH of the waste is less than 6.0 or of the waste is not suspected of containing cyanides.
5. Sulfide Screen is used to indicate whether the waste has the potential to produce hydrogen sulfide upon acidification. It is not required if the pH of the waste is less than 6.0 or if the waste is not suspected of containing sulfides.
6. Peroxide Screen is used to indicate the presence of peroxides. It is not required if the waste is not suspected of containing peroxides.
7. BTU Screen is used on organic material to determine if BTU's are greater or less than 5,000 BTU/lb. for energy recovery by fuels substitution. It is not required for wastes not applicable to fuels substitution. It is also not required for fuels known to have greater than 5,000 BTU/lb.
8. Nitric Acid Screen is used to determine if material contains nitric acid. It is not required if the waste is not acidic or not suspected of containing nitric acid.
9. Radiation Screen is used to screen wastes for radioactivity above background. EQFL is not permitted to accept radioactive or low-level mixed waste and does not routinely screen for radioactivity. This is an additional test EQFL can perform using the Geiger

Mueller counter if management had reason to suspect that an incoming waste contained radioactive material. It's uncertain what particular instance or set of circumstances would trigger the request, or need, for radiation screening.

10. GC Scan is used to identify separate organic compounds. A GC Scan may be requested by management if they believe it is needed.
11. Metals scan is used to identify metals constituents. A metals scan may be requested by management if they believe it is needed.
12. Consolidated Confirmatory Compatibility Testing. The SOP for this test procedure is contained in Appendix J (Volume 2 of 3) "Liquids Bulking." Compatibility Testing is performed to determine if materials are compatible prior to consolidation or treatment.

4.5.3 Supplemental Analyses Using Standard Techniques

These test methods are adopted from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Office of Solid Waste SW-846, Updates and Appended Materials) and other EPA approved methods. Other methods may be added as required.

4.6 Incoming Waste Shipment Procedures

Each hazardous waste shipment, upon arrival at the facility, will be inspected, sampled and analyzed as defined herein. All RCRA-regulated waste shipments will be sampled and analyzed according to this WAP. This includes bulk shipments manifested to EQFL even though it may be remanifested out immediately without entering or not stored at the facility All shipments received on manifest will be entered into the EQ electronic waste tracking system (EQAI). This serves two purposes. First, it compares the actual waste shipment identity with that identified in the pre-acceptance phase and that listed on the waste manifest. Second, it ensures the proper management of the waste through final disposal off site.

The Quality Control (QC) sheets or computer EQAI container tracking system tracks the waste through the facility from point of arrival at the receiving area to its final disposal. The current EQFL QC sheet is included in Appendix J (Volume 2 of 3). The identity, quantity, and types of waste from each generator's incoming shipment are tracked and documented by the EQAI tracking system and QC sheets. Fingerprint Analysis results are also tracked and documented by this method.

Incoming waste shipment identification verification begins upon arrival of the waste at the facility. The sampling and analysis of the incoming waste will be performed in accordance with the methods described in this WAP. The shipping papers for the waste are checked and compared to the approved profile. The waste will be accepted (pending quality control verification) if the shipping documents are correct. Shipping document discrepancies are resolved with the generator prior to acceptance (pending quality control verification) of any waste material. Hazardous waste shipments will be sampled and analyzed for at least the mandatory waste fingerprint analyses. This occurs every time a shipment is received. A flow chart of the EQFL Waste Screening process is included in Appendix J (Volume 2 of 3).

A minimum of 10 percent of the containers per each waste stream will be selected for sampling of non-lab pack waste. Example: For a shipment of one waste stream of 80 containers, a minimum of 8 samples will be taken. Container samples that are related to one generator and one process may be composited prior to analysis, providing the individual samples are similar in physical appearance. If discrepancies are noted in samples taken from 10 percent of the containers, such as the material approved is a solid and liquids are found, all remaining containers will be opened and inspected (at minimum).

Certain types of waste are not sampled or analyzed. These are lab packs from facilities such as households, laboratories and schools, and "empty" containers. A visual inspection of at least 10 percent of the "empty" containers will be performed to ensure the containers are empty as per 40 CFR 261.7(b)(1). Lab pack procedures are described in the Lab Pack section of this WAP. Wastes such as light bulbs, lamps and batteries are also not sampled.

The general logic utilized by the facility personnel in deciding whether to accept or reject a particular waste load is based on "Fingerprint Analyses." Other major decisions regarding waste acceptance is the need for additional analyses, the actual waste identification, and an evaluation of whether a waste found to be off-specification can still be accepted.

The EQFL chemist or facility manager decides whether additional analyses are required for a particular waste based on the following:

- Results of "Fingerprint Analyses"
- Knowledge of generator and/or waste-generating process
- Results of pre-acceptance evaluation.

Further testing will be required if the results indicate unexpected presence or absence of screen parameters with respect to pre-acceptance analytical results or if there is reason to suspect that the waste composition has changed. The effectiveness of the waste identification step is dependent on the following components:

- Inspection
- Sampling
- Analytical Results
- Waste Profile
- Any additional documentation supplied by the generator
- Land Disposal Restrictions of 40 CFR Part 268
- Waste Manifest
- Pre-Acceptance Analytical Results
- Management Decision

Laboratory personnel must classify the waste as being "off-specification" if it is significantly different in waste type from the information shown in the profile, the pre-acceptance evaluation or on the manifest. Wastes found to be in non-conformance may be rejected. They may be re-evaluated for possible acceptance by the facility despite the non-conformance or they may be shipped to an alternate TSD facility if the proper treatment method is available. The re-evaluation may be based on the following criteria:

- Permit Authorization
- Discussions with the Generator
- Facility Conditions
- Facility Manager's or Designee's Judgment

Pursuant to 40 CFR Part 265.72, the facility personnel must discuss and attempt to resolve with the generator any discrepancies between the actual waste and that shown on the manifest.

EQFL does not accept the materials listed below:

1. Regulated Biomedical Waste. If incidental biomedical waste is discovered in the shipment and it is identified by the material being placed in a “red bag” or is clearly labeled as such, the material will be rejected back to the generator. If non-hazardous material, which is not regulated by chapter 64E-16 F.A.C. is discovered, the material will be handled as solid waste.
2. Regulated Radioactive Materials

4.7 Operational Procedures

Each movement of a waste within the facility during which any change in its type or overall properties occur may make it subject to additional inspection, sampling and analysis to determine appropriate handling and management of the waste. Many of the analyses needed for the treatment, storage, and disposal functions are performed during incoming shipment identification. These are not repeated unless it is known or believed that the waste identity may have changed during storage or processing.

4.8 Analysis of Treated Characteristic Hazardous Wastes

EQFL, as part of this renewal permit application, will construct and operate an on-ground solidification unit/treatment tank where the solid waste treatment unit currently resides. The purpose of the new unit is to treat characteristically hazardous waste codes D002 (corrosives); D004 (arsenic); D005 (barium); D006 (cadmium); D007 (chromium); D008 (lead); D009 (mercury); D010 (selenium); and D011 (silver). No listed hazardous wastes are being proposed for treatment at the facility. EQFL intends to initially treat chromium and lead, followed by cadmium and silver as they gain operational knowledge concerning the use and practical capabilities of the treatment tank.

Waste that is treated such that it no longer exhibits the hazardous waste characteristic(s) for which it was listed is no longer considered hazardous and can be disposed of at a non-RCRA regulated facility assuming a grab sample is also tested, meets LDRs and contains no free liquids. In the case of the material EQFL intends to treat, the objective would be to assure through analytical testing of representative, composite samples that the waste no longer meets the characteristics (can be decharacterized) and meets LDRs as summarized in Table 12-1 and further, that the treated material contains no free liquids as determined by the Paint Filter Test (Method 9095B).

Waste is to be deposited directly into the top of the box, the pH adjusted, and then a solidification agent is introduced. The process will consist of raising the pH for metals treatment into the 9 to 13 range which appears to be the optimal range based on similar treatment processes at other EQ facilities. The materials are mixed using a backhoe, portable mixer, or similar piece of equipment. Additional solidification agent is added until no free liquids are present. Frequent bench testing will be required and samples will be collected at suspected endpoints of treatment and analyzed for a short duration (30-90 min) TCLP test or possibly, because the material will be a solid, a total metals analysis for the D004-D011 waste codes. EQ has found at other facilities that if a sample does not pass a TCLP test after 90 minutes, it's not likely to pass a full, 24-hr TCLP. Treated materials that "pass" the short duration TCLP test will be followed by a representative, composite sampling of the waste which will be sent off site for TCLP analysis by a NELAP accredited laboratory. Further, a grab sample will be randomly collected to assure the treated waste meets LDRs and can be disposed of at a non-hazardous, Subtitle D landfill.

Treated materials that pass the TCLP test, meet the LDRs and contain no free liquids will be loaded into roll off boxes and/or dump trailers for subsequent disposal at an approved disposal facility (Subtitle D landfill). If the treated material fails the initial TCLP screening and is still characteristically hazardous, it will continue to be treated until a TCLP test has confirmed the material no longer retains the hazardous characteristics (can be decharacterized) for the waste being treated. Further, a grab sample of the treated material will also be tested to assure it meets LDRs. It should also be pointed out that the disposal facility accepting the treated material may require additional testing before they will accept the waste. EQFL will determine testing requirements for the proposed disposal facility and have the samples analyzed accordingly.

EQFL intends to establish a fully equipped, specialty laboratory on site that will perform the preliminary test results of treated materials (i.e., short duration TCLP test and/or total metals testing). The laboratory will contain a refrigerator, an agitator with stir bars, an atomic adsorption machine (requiring acetylene, nitrous oxide and air), fume hood, industrial strength mixer, pH meter, scale, titrator, and appropriate laboratory reagents.

4.9 Quality Control Policy

EQFL intends to follow all sampling and testing criteria set forth in accordance with applicable SW-846 methods. For methods not addressed in SW-846, ASTM or comparably standardized laboratory methods

will be used. It is EQFL's understanding that this will be acceptable since our sampling and analysis at the facility are primarily for "Fingerprint Screening" of incoming wastes to assure that they meet profiled parameters. If a NELAP accredited laboratory has provided sufficient results then waste codes may be removed from the sampled containers.

EQFL has developed a program of quality control practices and procedures to ensure that precision and accuracy are maintained throughout its laboratory. Contract laboratories employed by the company must be NELAP accredited. Data produced for use by DEP will use applicable DEP SOPs per the DEP Quality Assurance Rule, 62-160.210, .240, .300 & .320, F.A.C.

The EQFL QC Sampling and Analysis Procedures are utilized to verify waste characterization and not to quantitatively analyze the waste. This section does not provide specific performance standards of quality control procedures for individual sampling and analysis techniques. Such specifics can be found in the facility Laboratory SOP manual. The specific performance standards are dynamic and are revised as warranted to reflect technological advances in sampling and analytical techniques.

4.10 Analytical Procedures

4.10.1 Fingerprint Analyses

These are analytical procedures designated to identify or screen waste. They have been developed by EQFL based upon its operating experience as rapid but effective means for establishing key decision parameters pertinent to proper waste management.

1. Physical Description. Samples are inspected and the physical appearance of the waste is recorded Physical State (solid, semi-solid, liquid, etc.)
2. pH Screen. Full-range pH paper or a pH meter is used directly on liquid samples and on the free liquid portion of liquid/solid samples.
3. Water Mix Test. Approximately equal volumes of waste and water are mixed. Water should be added to the waste rather than addition of wastes to water. The following characteristics are noted:
   - Gross Solubility in H_20
   - Gross Specific Gravity (heavier or lighter than water)

   If water reactivity is noted (generation of gases, heat, turbulence or sudden physical changes such as solidification, thickening or emulsification) record the results.
4. Flammability Potential Screen. A small amount of a liquid waste sample or a solid waste sample is placed into an aluminum-weighing tray (or similar laboratory container). A flame is very briefly applied to the sample. If the sample does not ignite, the result is recorded as a negative flammability potential (e.g., negative). If the sample ignites with the application of a flame, then the result is recorded as positive and may require further investigation. Liquids with a negative flammability potential may be quantified using an approved flash point tester.

Solids may be further investigated (e.g., via review of the Generator's Waste Material Profile Sheet or other supporting documentation) to determine flammability and BTU value for possible fuel blending disposal off site. The investigation will also examine the waste's potential to cause fire through friction, absorption of moisture, or spontaneous chemical changes.

Note: Halogenated solvents typically give off vapors that burn with a yellow (or greenish) smokey (sooty) flame in the presence of an external flame. Wastes with this type of non-sustaining flame are reported as having a negative flammability potential.

4.10.2 Additional Waste Analyses

1. Specific Gravity. This test is performed to aid in determining if an acid or base may be concentrated or to determine the weight of the material.
2. Cyanide Screen. This screening test is performed using Cyantessmo (or equivalent) test paper according to the laboratory operating procedure.
3. Sulfide Screen. This screening test is performed using lead acetate test paper (or equivalent) according to the laboratory operating procedure.
4. Radiation Screen. The sample is placed in a position below the Geiger-Mueller probe (or equivalent) for a period of at least five (5) seconds. An audible alarm and meter reading above the background reading will indicate radioactivity.
5. Oxidizer Screen. This screening test is performed using potassium-iodide starch test paper (or equivalent) according to the laboratory operating procedure. All positive oxidizer screen results will be verified with an ORP test (or equivalent).
6. Consolidated Confirmatory Compatibility Testing. The SOP for this test procedure is contained in Attachment J in Volume 2 of 3 "Liquids Bulking."

4.11 Acceptance of Packaged Laboratory Wastes (Lab Packs)

Laboratory chemicals from many different sources are accepted at the facility. The majority of the "laboratory chemicals" (lab packs) received by the facility are household exempt wastes. The household waste lab packs consist primarily of paints and paint related materials. Other household wastes include cleaners, pool chemicals, pesticides, and lawn chemicals. Lab packs from industrial generators consist of virtually any type of chemical acceptable by the EQFL permit. Lab packs may be EQFL packed or be "customer" (generator) packed. Lab packs that are EQFL packed have been packed by EQFL personnel (chemist or equivalent). The container contents have been reviewed, packed, documented, approved, and verified by an EQFL chemist or equivalent. Generator packed lab packs have been packed by generator personnel. The generator submits a container contents sheet to EQFL for review and approval. A copy of the current EQFL lab pack container contents sheet is included in Appendix J (Volume 2 of 3).

The following is a partial example of lab pack guidelines and procedures that are used for lab pack wastes. Complete EQFL lab pack guidelines are available on site at the EQFL facility.

4.11.1 Guidelines for Acceptable Lab Packs

Group 1: Alkali (with pH greater than 12.5)

A. Inorganic alkaline chemicals (e.g. sodium hydroxide, calcium hydroxide including alkaline salts, Na3 PO4, sodium borate).
B. Organic bases (e.g. triethanolamine)

Group 2: Acids (with pH less than 2)

A. Inorganic acids (e.g. hydrochloric acid, sulfuric acid) as solids or as liquids.
B. Organic acids, (e.g. stearic acid, citric acids, acetic acid)

Group 3: Non-Hazardous - (e.g., plastics, oils)

A. No container larger than 5 gallons to be packed in drum.
B. No more than 50#/containers of solids to be packed without special permission.

C. Maximum quantities per lab pack container are as follows:
   a) 20 gallons per 55-gallon drum
   b) 11 gallons per 30-gallon drum
   c) 2 gallons per 5-gallon drum
   d) For solids, use spacing rule (e.g. 2-3 inches between drum walls and materials)
   e) Sealed liquid containers should be overpacked in drum with enough compatible absorbent to absorb all liquid if broken.

The above list is not all-inclusive but should be regarded as an example of a basic packing guideline for lab packs.

4.11.2 Unacceptable Lab Packs

A. Regulated Bio-Hazardous
B. Regulated Radioactive Materials

4.12 Procedure for Waste Acceptance

Before containers are shipped to EQFL, a waste profile form or electronic version must be submitted to EQFL, including a complete set of container contents sheets describing the contents of each drum in terms of explicit chemical identification, quantities, concentrations, pH, etc., as applicable. EQFL Technical Services (chemist or equivalent) will review the profile and the container contents sheets and inform the generator of any materials that are not acceptable, the packing of incompatible materials that are not acceptable, or the packing of incompatible materials within the same drum. When the necessary corrections have been made by the generator, corrected container contents (changes indicated, initialed, and dated) should be sent to EQFL. After review of the corrections, the generator will be notified that the waste is approved for shipment. When the hazardous waste arrives at EQFL, a chemist or equivalent will quality control check the lab packs. A minimum of 10% of EQFL packed hazardous waste lab packs will be opened and inspected. Each generator packed hazardous waste lab pack (100%) will be opened and inspected. See the Waste Screening Flow Chart in Appendix J (Volume 2 of 3) for further information.

4.13 Site Generated Waste

Site-generated wastes include the following:

- Containment sump liquids and residues
- Spent fluorescent lamps
- Spent batteries
- Lab trash
- Lab wastes and rinses
- Samples (when hold time is complete)
- Personal protective equipment
- Chemical rags

Site-generated wastes are characterized and managed according to all applicable requirements and regulations.