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March 10, 2010

Mr. Merlin D. Russell, Jr.
Environmental Specialist III
Hazardous Waste Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: First Notice of Deficiencies
Perma-Fix of Florida, Inc.
FLD 980 711 071
Construction and Operating Permit Application

Dear Mr. Russell:

On behalf of Perma-Fix of Florida, Inc. (PFF), Schreiber, Yonley & Associates (SYA) is submitting the enclosed response to the Notice of Deficiencies (NOD) letter dated February 10, 2010. Our response also reflects the phone discussions with you on February 19, 2010, in which Kurt Fogleman from PFF and Jerry Goodwin and I from SYA participated. The enclosed response lists FDEP comments and PFF's response to each comment. Revised permit application pages and additional pages/maps are also attached herewith. Revised text pages are attached in both strike-edit and clean versions to assist you in easily identifying the changes.

In addition, a table is attached with instructions to replace or add the revised pages/drawings. As requested, also attached is a CD that contains the consolidated application after this revision.

Please advise if you need any additional information or clarification.

Sincerely,

SCHREIBER, YONLEY & ASSOCIATES

A handwritten signature in black ink that reads 'Viraf Palsetia'.

Viraf Palsetia
Senior Associate Engineer

VKP:bah
Enclosures

cc: Kurt Fogleman, Perma-Fix of Florida, Inc.
Ashwin Patel, FDEP-Jacksonville

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First Notice of Deficiencies

General Comments:

1. **The FDEP did not review this document to address the regulations for management of the radiological portion of the mixed waste.**

RESPONSE: No response is necessary for this comment.

2. **Although not deficiency, throughout the application, many of the figures were so reduced that they were not legible. Full size or legible copies should be provided.**
Merlin Follow-up Response: Illegible figures are identified below. Re-submit legible copies unless the figure is from a report prepared by another consultant that is unavailable:

Part I Appendix C, Figures 1-3 (Attachment I.D.1)

From Lewis Engineering and Consulting.

Part I Appendix D, Figure I.D.2 (most of the legend is illegible)

Drawing has been reprinted to 11X17 size and is legible.

Part I Appendix D, Figure I.D.12 (most of the legend is illegible)

Drawing has been reprinted to 11X17 size and is legible.

Part I Appendix D, Figure I.D.13 (most of the legend is illegible)

Drawing has been reprinted to 11X17 size and is legible.

Part I Appendix D, Figure I.D.14 (most of the legend is illegible)

Drawing has been reprinted to 11X17 size and is legible.

Part I Appendix D, Figure I.D.15 (most of the legend is illegible)

Drawing has been reprinted to 11X17 size and is legible.

Appendix D, Secondary Containment Certification. The two figures in Part II.C. The first is the Bulk Tank Retainer. The bottom portion of the figure was not copied. The following figure showing the 3,000 gallon storage tank is illegible.

More legible figures are included.

Appendix E, Example Inspection Log, Figure II.C.1

A better copy is submitted.

Figure II.I.1 Proposed PF-II Process Layout

All Subpart BB figures.

All figures were reprinted and are more legible.

Specific Comments:

Part I

3. **A.2. The “Construction and Operation” box should be checked because the application proposes replacement of the PF-II® process.**

RESPONSE: Section A.2 of the Application for a Hazardous Waste Permit part I is revised per this comment.

4. **B.2. Is the 7.67-acre area of the facility correct considering that during the December 2009 inspection, FDEP was notified that the property to the north had been purchased by Perma-Fix of Florida, Inc. (PF)? Figures and text will need to be updated to correctly reflect the “facility” (40 CFR Part 260.10 definition) if its definition has changed. Also, it is our understanding that the area formerly known as the “Quadrex Annex Area” is no longer part of the “facility” (See related comment under Part Q).**

RESPONSE: A paragraph is added on page 14 of Attachment I.D.1 to clarify the definition of “facility.” An additional Figure I.D.21 is created to show the wooded parcel on the north of the RCRA facility.

Attachment II.A.2-Contingency Plan

5. **The facility’s location should be illustrated on a road map.**

RESPONSE: Figure CP-2 is added to the Contingency Plan, which shows the facility location on a road map at page 20. Page 2 of the Contingency Plan is revised to add the reference to this Figure CP-2.

6. **The Contingency Plan (CP) does not directly address the radiological portion of the mixed waste. Although the term “mixed waste” is used in the first paragraph under “Facility Operations”, the average person or first responders would have no idea that mixed waste is a combination of hazardous and low-level radioactive waste. Because this CP is distributed to other agencies and emergency responders, FDEP suggests that the CP be updated to include more details on the radiological component.**

RESPONSE: Page 1 of the CP has been revised to indicate that mixed waste is a combination of hazardous and radioactive waste.

7. **Section 4.5.2 Identification of Hazardous Materials: Although Section 4.5.2 assumes that all waste will be toxic, reactive and ignitable, it would be appropriate to discuss how specific information can be obtained in order to provide first responders with the current waste information in the event of an actual emergency. As an example, the CP should be revised to state where manifests (or copies of manifests, waste analysis data, etc.) are kept or available (on line?) and immediately accessed in the event of an emergency. If possible, we would recommend that the information should be available on line to the Emergency Coordinators in the event an emergency prevents access to the records on site.**

RESPONSE: Page 4 of the CP is revised to include the location of manifests and waste analysis data kept on-site, and then off-site after three years. The recommendation for on-line information availability to Emergency Coordinators in the event of an emergency will be very cumbersome to implement.

8. **Section 13.0, page 13: If a reportable quantity (RQ) is exceeded, the NRC needs to be notified immediately (40 CFR 302.6(a)). EPA's Fact Sheet Emergency Release Reporting Requirements located at (<http://www.epa.gov/region7/toxics/factsht.htm>) requires notification within 15 minutes. The Nuclear Regulatory Commission (NRC) should be added to this table.**

RESPONSE: The table in Section 13 is meant for notifications and simultaneous facility actions needed for outside emergency services. The "" next to the second column titled "Then Notify" clearly states that additional agency notifications may be required beyond the emergency notification to outside responders listed in this table. The immediate notification requirement of 40 CFR 302.6(a) to the National Response Center has already been addressed in Attachment CP-4. This regulatory requirement does not require any notification to the Nuclear Regulatory Commission.*

9. **Attachment CP-1: 40 CFR Part 264.52(d) requires addresses of the emergency contacts. For security reasons, the addresses can be replaced by only the zip code. Also, as required by this rule, PF should also ensure that the Alternate Emergency Coordinators are listed in order in which they will assume responsibility as alternates.**

RESPONSE: Attachment CP-1 has been revised to include zip codes for the home addresses of the Emergency Coordinators. In addition, an "" noting that the Alternate Emergency Coordinators are listed in the order in which they will assume responsibility is added in Attachment CP-1.*

10. **Attachment CP-2, page 23, initial response, last bullet. As written, the text suggests that the Emergency Coordinator is responsible for evacuating surrounding areas. For clarity, the emergency coordinator (or its designee) is required to assess emergencies and if evacuation of the area is advisable, the coordinator must be available to assist appropriate officials if an evacuation is necessary (40 CFR Part 264.56(d)(1)). The FDEP also suggests that this phrase be added to the paragraph for 3.0 Emergency Coordinators, page 2.**

RESPONSE: The suggested wording is added to Section 3.0 on revised page 2.

11. **Attachment CP-2: Although not a deficiency, because the information is provided, the FDEP recommends that PF consolidate this section. As written, there are two sections responding to fires. Page 23 identifies one procedure for fires (and explosions), yet on the following pages, a second, more detailed procedure is written that also addresses fires (large and small fires). Also, the detail given for the large and small fires is absent for any procedures for explosions. Although the two procedures for addressing fires are not necessarily incompatible, it would be clearer if only one procedure was included. Similarly, an update containing details for addressing explosions is recommended.**

RESPONSE: The original Attachment CP-2 is now broken down into Attachment CP-2A for fires and Attachment CP-2B for explosions. Both of these revised attachments include one single procedure.

12. **Attachment CP-3: Page 27. Under spill Control Procedure, the first bullet states "Close all storm water effluent valves". This measure should also be added to the major fire emergency procedures, if safe to do so, in order to keep potentially contaminated fire-fighting waters from exiting the facility. Similar to the comment on Attachment CP-2 above, there are two sections on containing spills and the FDEP recommends only one.**

RESPONSE: Attachment CP-3 has been revised to include a single procedure. In addition, the Attachment CP-2A procedure includes the provision to keep potentially contaminated fire-fighting waters from exiting the facility, if it is safe to do so.

13. **It would be appropriate to reference management of contaminated media per FDEP guidance, *Management of Contaminated Media under RCRA*, August 9, 2006 that can be found at: http://www.dep.state.fl.us/waste/quick_topics/publications/shw/hazardous/ManagementContaminatedMedia.pdf**

RESPONSE: As discussed in the teleconference on February 19, 2010, no response from PFF is necessary regarding this suggestion.

14. **A new option for cleanup of spills is available under the De Minimis Discharge provisions of Rule 62-780.550, Florida Administrative Code (F.A.C.). However, the RCRA program (in the renewed permit) will require reporting any discharge cleaned up under the De Minimis provisions.**

RESPONSE: PFF chooses not to exercise this option at this time.

15. **Attachment CP-4: This attachment should be entitled "Emergency Notification and Reporting Information". This page does not include the notification and reporting requirements specified in General Condition 16.c. of the operating permit or the newly identified SWMUs/AOCs per Specific Condition HSWA Part I-Corrective Action. These requirements should be included.**

RESPONSE: As discussed in the teleconference on February 19, 2010, the permit application does not need to include pervious permit conditions, but can be placed in the new permit issued by FDEP. However, this attachment is revised to include the requirement of submitting the written report to FDEP within 5 days if an emergency involves a fire or an explosion at the facility that could threaten the environment or human health outside the facility.

16. **Attachment CP-5, Emergency Equipment List: We recommend that this list include field monitoring devices such as dosimeters, and field equipment such as an OVA, PID or FID that may be used to assess an emergency and screen releases (A PID is referenced in Section 4.5.3, page 5 of the CP). Also, Table 1 in Part 2.A will need to be updated.**

RESPONSE: Attachment CP-5 and Table 1 in Part II.A have been revised to incorporate this comment.

17. **Attachment CP-6-Emergency Equipment Location Map:** FDEP recommends that the same terminology and same symbols in the legends be consistent. As an example, in the first three figures, the symbol for fire extinguishers is different for each figure. There are also different symbols for spill equipment and SCBA.

RESPONSE: Emergency equipment location maps in Attachment CP-6 have been revised to incorporate this comment.

18. **D-PSB Building.** Does one of the circles in the Fire Suppression Riser Building represent a Fire Extinguisher? Please update the figure appropriately.

RESPONSE: The D-PSB drawing has been updated to incorporate this comment.

Training Program

19. **Attachment 1, Personnel Training Program, page 2, Paragraph C:** Is a portion of the text missing or was the broken sentence intended to be removed from the text? A corrected page must be submitted.

RESPONSE: Page 2, Section C. of the Personnel Training Plan has been corrected per this comment.

Chemical and Physical Analysis

20. **Part II.A, A5, page 9, Chemical and Physical Analysis:** The application requires that reports of the chemical and physical analyses of the hazardous wastes and hazardous debris handled at the facility, including all information which must be known to treat, store, or dispose of the wastes in accordance with 40 CFR 264.13 be submitted per 40 CFR 270.14(b)(2). Please include only one example (data) of each chemical and physical analysis in this section of the application. Also, explain where Perma-Fix maintains all chemical and physical analysis data as a part of records.

RESPONSE: The revised page 3 of the Waste Analysis Plan mentions that a typical example of chemical and physical analysis is included in Attachment II.A.4.6. New Attachment II.A.4.6 contains the analytical data. In addition, page 3 is revised to include the location of the analytical data.

Waste Analysis Plan

21. **Section 2.2.1, Waste Exempt from Sampling:** For the record, there is no exemption from sampling the waste streams identified in this section. PF may choose to routinely perform a visual inspection but cannot exclude an analysis, if needed or required by PF or the FDEP. The FDEP does not approve the proposed exemption as written.

RESPONSE: Section 2.2.1 (page 4 of the Waste Analysis Plan) is revised to incorporate this comment.

22. 2.3, page 6. The last sentence should read "...and Appendix VIII-Hazardous characteristics Constituents) and..."

RESPONSE: Section 2.3 on page 6 is revised to incorporate this comment.

23. 2.3, page 7 second paragraph, and Appendix II.B.3 Mercury Amalgamation at the bottom of page 1: Without documentation that the amalgamation process renders the mercury waste non-hazardous, the FDEP disagrees with the statement that once amalgamated, the mercury waste is no longer a hazardous waste. Treatment by a required technology to meet LDRs does not in itself remove the waste from Subtitle C regulation, although it may be true that treatment to meet LDRs also removes the toxic characteristic. The FDEP agrees that once amalgamated, the LDR treatment standard for the elemental mercury contaminated with low level radioactive waste has been met (and hence, it can be land disposed in a Subtitle C landfill) but PF must perform a waste analysis, after amalgamation, to determine if the waste remains characteristically hazardous if any disposal option is proposed other than Subtitle C landfill. To sum up, PF can send the amalgamation to a hazardous waste landfill without further testing (unless required by the receiving facility) but without a demonstration that after amalgamation the treated waste passes TCLP, the amalgamated waste must be managed as hazardous waste and cannot be sent to a Subtitle D landfill. Please keep in mind that use of generator knowledge can be used. As an example, if testing of several amalgamations clearly demonstrates that the material passes TCLP, then every amalgamation need not be tested. Periodic testing can be performed to validate the use of generator knowledge.

RESPONSE: Section 2.3 on page 7 and page 1 of Appendix II.B.3 have been revised to incorporate this comment.

Section B Containers

24. This Section should be updated to include the following:
Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material. (§264.177(b))

A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers or tanks must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device. (§264.177(c))

RESPONSE: Section B.2 & 3 of Part II.B is revised to incorporate this comment.

25. Appendix II.B.2, Deactivation Process, page 1, first paragraph. The reference to 40 CFR 263.23 should be 40 CFR 261.23.

RESPONSE: Page 1 of Appendix II.B.2 is revised to correct this typographical error.

26. **Appendix II.B.3 Mercury Amalgamation.** Please refer to the same comments on the applicability of hazardous waste determinations and LDR requirements for this waste stream that are contained under the Waste Analysis Plan comments.

RESPONSE: Page 1 of Appendix II.B.3 is revised to incorporate this comment.

Section I Miscellaneous Unit

27. **A schedule and narrative discussion for the decommissioning and closure of the existing PF-II equipment must be included here or in the closure section. A schedule for installing the new equipment should be included.**

RESPONSE: Page 1 of Attachment II.I.7 of the Closure Plan is revised to include the date by which the existing PF-II will be replaced. Narrative discussion of the closure of the existing PF-II already exists on page 14 of the Closure Plan under the heading "Miscellaneous Unit Closure."

28. **Attachment II.I.6. Silver should also have an asterisk as its concentration is measured using TCLP.**

RESPONSE: This attachment is revised to incorporate this comment.

Section K Closure

29. **Page 1, paragraph 4.** Although the permit modification process is acceptable, Perma Fix should be aware that if unexpected circumstances arise during closure, the FDEP should be notified as quickly as possible. Experience has shown that unexpected circumstances often do arise. In many cases, changes to the closure can be accomplished without submitting a permit modification, although any changes to the approved closure plan will need to be documented in the closure report, and certified by a professional engineer.

RESPONSE: Page 1 of the Closure Plan is revised to incorporate this comment.

30. **Before closure is implemented, the FDEP recommends that PF meet with the FDEP to discuss decontamination procedures. Other decontamination options and decontamination "criteria" may be available.**

RESPONSE: No revision is necessary to the permit application.

31. **Page 2, paragraph 1:** Depending upon the date of any release and the contaminant(s) in a release, the FDEP might require that the deeper sample be analyzed even if the shallow sample is clean to account for potential migration. Also for clarity, any exceedences of SCTLs will require both vertical and horizontal assessment.

RESPONSE: Paragraph 2 on page 2 of Attachment K-1 is revised per this comment.

32. **Page 7, paragraph 8.** The SCTLs and GCTLs found in Chapter 62-777, F.A.C. are not *guidance* concentrations when used for soils and groundwater although PF's intent

might be to reference their use for guidance when discussing decontamination waters. If so, then the language is acceptable.

RESPONSE: The word "guidance" has been removed from the last paragraph on revised page 7 to incorporate this comment.

33. **Page 9, Section K6.2, paragraph 4. The "clean closure" criteria for concrete are not addressed under the Risk Assessment methodology in Chapter 62-785 F.A.C. (Brownfields Cleanup Criteria). Was this reference intentional or a typographic error?**

RESPONSE: References to "Risk Assessment Methodology" for clean closure criteria for concrete have been deleted on revised page 9 of the Closure Plan.

34. **Page 10, Section K6.3, paragraph 2. Non-ferrous metals that are recycled share the same exclusion as recycled ferrous metals.**

RESPONSE: Page 10 of the Closure Plan has been revised to incorporate this comment.

35. **Page 10, Section K6.4. This section should be updated to note that in order to meet "clean closure", any contaminants remaining in the soil that are below residential SCTLs must not leach contaminants into the groundwater above any GCTLs.**

RESPONSE: Section K.6.4 on page 10 has been revised to incorporate this comment.

36. **Attachment K-1, Closure Sampling and Analysis Plan. As a general comment, sampling and analytical procedures, including the use of FDEP SOPs, shall be the current procedures at the time of partial or final closure.**

RESPONSE: Page 1 of Attachment K-1 has been revised to incorporate this comment.

37. **Attachment K-1, Closure Sampling and Analysis Plan, Page 1, Section 2.0. Depending upon soil data or other evidence of a release to soils, the groundwater may need to be assessed and monitored.**

RESPONSE: No revision to the permit application is necessary since the last paragraph of Section 3.3 of Attachment K-1 states, "Prior to conducting additional subsurface investigations, a written work plan will be submitted to FDEP for review and approval."

38. **Attachment K-1, Closure Sampling and Analysis Plan, Page 2, Section 3.3. In addition to the proposed sample locations in Figures K-1 through K-3, biased samples must be taken in areas that exhibit cracks or breaches in the concrete. These locations can be determined at the time of closure.**

RESPONSE: Section 3.3, page 2 of Attachment K-1 has been revised to incorporate this comment.

Section Q Closure Information Requirements for Solid Waste Management Units

39. The "Quadrex Annex Area" is no longer part of the facility. For historical purposes, it would be appropriate to include the map showing the property but it is recommended that narrative be added to the text that discusses the reason(s) that the property is no longer part of PF. Because SWMUs 30, 31 and 32 were located on the "Quadrex" property and because the SWMUs were identified as No Further Actions (NFA), it would be appropriate for PF to request that these SWMUs be removed from the permit.

RESPONSE: Part II.Q has been revised to incorporate this comment.

Section S Requirements for Equipment

40. Section S2, subpart BB should be revised to state that PF conducts monitoring of equipment using method 40 CFR Part 60, pursuant to 40 CFR 264.1063(b). This sentence should also be included in other applicable sections of Subpart BB information.

RESPONSE: This comment is incorporated in the revised pages 3 (Section S2) and 4 (Sections S7 and S8).

41. Attachment S-1 (List of Equipment) has a column that lists exemptions from subpart BB requirements. A column similar to that one should be included in other Attachments in Subpart BB.

RESPONSE: This comment is incorporated in the revised Attachments S-1 through S-3.

42. One more column should be added in each of the Attachments of Subpart BB to identify applicable rules for each individual piece of equipment.

RESPONSE: This comment is incorporated in the revised Attachments S-1 through S-3.

Substantial Modification

43. Page 5, Table 2. It appears that the asterisk for ethylbenzene is a typographic error as the endpoint (500 mg/m³) is from the Technical Report.

RESPONSE: This change has been made.

44. Page 8, Table 5 summarizes the maximum quantity of the constituent in a container that will result in a maximum distance less than 1,164 yards. The table lists the amount in pounds. From a practical application aspect, it would be useful to add a column identifying the largest container (or constituent volume) that could be stored/treated at one time. This same idea should be integrated into Table 8.

Response: Perma-Fix feels FDEP's concern is already addressed as part of their standard operating procedures for evaluating incoming wastes which is contained in the Waste Analysis Plan Attachment II.A.4.5.

- 45. Page 11, Section 3.1. The second sentence should reference Attachment 8 rather than Attachment 7**

Response: This change has been made.

Perma-Fix of Florida, Inc.
Response to NOD Dated 2/10/2010
Replacement/Addition of Revised Documents

Section	Replace	Add	Comment
	Cover Page titled "RCRA Permit Application"		Placed revision date of March 10, 2010
Part I	Page ii of Table of Contents		Added Figure I.D.21
	Page 1 of 4 of Application for a Hazardous Waste Permit		Addresses NOD Comment #3
	Figures 1 to 3 of appendix C LSV Process Certification Report		Addresses NOD Comment #2
	Figure I.D.2		Addresses NOD Comment #2
	Figure I.D.12		Addresses NOD Comment #2
	Figure I.D.13		Addresses NOD Comment #2
	Figure I.D.14		Addresses NOD Comment #2
	Figure I.D.15		Addresses NOD Comment #2
	Page 14 of Attachment I.D.1		Addresses NOD Comment #4
		Figure I.D.21 after existing Figure I.D.20	Addresses NOD Comment #4
Part II.A	Page 8		Addresses NOD Comment #16
Part II.A., Attachment II.A.2 (Contingency Plan)	Replace entire Contingency Plan with the revised one.		Addresses NOD Comments #5 through #7, #9 through #12, and #15 through #18
Part II.A., Attachment II.A.3 (Personnel Training Program, Attachment 1)	Page 2		Addresses NOD Comment #19

Section	Replace	Add	Comment
Part II.A., Attachment II.A.4 (Waste Analysis Plan)	Page 3		Addresses NOD Comment #20
	Page 4		Addresses NOD Comment #21
	Page 6		Addresses NOD Comment #22
	Page 7		Addresses NOD Comments #23 and #26
		Attachment II.A.4.6, Example of Typical Chemical and Physical Analyses	Addresses NOD Comment #20
Part II.B	Page 3		Addresses NOD Comment #24
	Page 1 of Appendix II.B.2		Addresses NOD Comment 25
	Page 1 of Appendix II.B.3		Addresses NOD Comments #23 and #26
Part II.C	Two figures in Appendix D		Addresses NOD Comment #2
	Figure II.C.1		Addresses NOD Comment #2
Part II.I	Fifth page in Attachment II.I.6		Addresses NOD Comment #28
	Page 1 of Attachment II.I.7		Addresses NOD Comment #27
	Figure II.I.1		Addresses NOD Comment #2
Part II.K (Closure Plan)	Page 1		Addresses NOD Comment #29
	Page 7		Addresses NOD Comment #32
	Page 9		Addresses NOD Comment #33
	Page 10		Addresses NOD Comments #34 and #35
	Page 1 of Attachment K-1		Addresses NOD Comment #36
	Page 2 of Attachment K-1		Addresses NOD Comments #31 and #38
Part II.Q	First page of Part II.Q		Addresses NOD Comment #39
Part II.R,S	Page 3		Addresses NOD Comment #40
	Page 4		Addresses NOD Comment #40
	Attachments S-1, S-2, and S-3		Addresses NOD Comments #41 and #42
Substantial Modification	Exhibits S-1 through S-11		Addresses NOD Comment #2
	Pages 5 and 11 of Substantial Modification Demonstration		Addresses NOD Comments #43 and #45