TCEQ Logo


Administrative and Technical Evaluation Checklist for the RCRA Part B Application

Texas Commission on Environmental Quality

Industrial and Hazardous Waste Permits Section,

Waste Permits Division

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# Introduction

This checklist serves as a guideline for the Part B information requirements of 40 CFR Part 270 and 30 TAC §305 Subchapters C and D and 30 TAC §335. This checklist follows the format of Part B Hazardous Waste Application Forms and Instruction. Sections of the Part B which are shaded in grey in the checklist will be reviewed during the administrative review to determine if the information has been submitted. Please complete the following columns: *Submitted?*, *Change Since Last Submittal?*, *Location?*,and *Comments or Variance.* For portions which are not applicable, mark the NA column.

# Disclaimer

This checklist is intended for use in the RCRA Part B application preparation and review process and will not be considered a substitute for required application materials. The checklist line items may not be the exact language of the applicable rules, statutes, or federal requirements. Any conflict or questions regarding the rule interpretation should be directed to TCEQ for determination, and disputes will be resolved in favor of the exact language of the rules, statutes, or federal requirements. Should any dispute occur in administrative proceeding, the applicant will bear the burden of proof of compliance with any and all applicable TCEQ and federal statutes, rules, or policies and procedures. This checklist is subject to discovery in administrative and civil legal proceedings and should not be considered confidential from the public.

# Contact Us

For any questions regarding the RCRA Part B Application or this Administrative and Technical Evaluation Checklist, please contact the Industrial and Hazardous Waste Program at (512) 239-2335 or by email at: [ihwper@tceq.texas.gov](mailto:ihwper@tceq.texas.gov).

# Part B Application Details

Facility Name: Click here to enter text.

Location: Click here to enter text.

EPA I.D. No.: Click here to enter text.

ISW Reg. No.: Click here to enter text.

Permit No.: Click here to enter text.

Type of Application: Choose an item.

Date of Application: Click here to enter a date.

Date Application Received: Click here to enter a date.

Date Revised Part B Received: Click here to enter a date.

# 

# Administrative Review

Date Administratively Complete: Click here to enter a date.

Administrative Review by: Click here to enter text.

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Supervisor: Click here to enter text.

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Technical Review

Date Technically Complete: Click here to enter a date.

Technical Review by: Click here to enter text.

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Supervisor: Click here to enter text.

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date Financial Assurance Section of the application sent to Financial Administration Division: Click here to enter a date.

# Checklist Notes

A: This checklist follows the numbering/hierarchy established in the Part B Application. In instances where the application does not contain specific hierarchy, it has been created for each checklist item. In instances where the application skips a hierarchical level or it was necessary to insert a preceding level, a tilde character (~) has been used as a placeholder.

B: Gray shaded items are part of the Permit Administrative Review.

C: Ch. 305 and Ch. 335 are State regulations; Ch. 260 through 270 are Federal regulations.

| **Item No.** | **SectionA** | **DescriptionB** | **HW RegulationsC** | **Submitted? (Y/N)** | **Change Since Last Submittal? (Y/N)** | **Location?** | **Comments or Variance** | **Technically Adequate? (Y/N)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | I. | **General Information** |  | NA | NA | NA |  |  |
| 2 | I.A. | **Applicant: Facility Operator (or Facility Owner & Operator, if same)** | 305.43; 305.45(a)(1); 270.10(a)(b) | NA | NA | NA |  |  |
| 3 | I.A.*1.* | Ensure legal name matches Secretary of State database |  |  |  |  |  |  |
| 4 | I.A.*2.* | Provide facility's physical address, and business address if different from physical |  |  |  |  |  |  |
| 5 | I.A.*3.* | Provide facility telephone number |  |  |  |  |  |  |
| 6 | I.A.*4.* | Provide Solid Waste Registration Number and EPA I.D. |  |  |  |  |  |  |
| 7 | I.A.*5.* | Provide Regulated Entity Name and Regulated Entity Number from Chief Clerk's database |  |  |  |  |  |  |
| 8 | I.A.*6.* | Provide Customer Name and Customer Number from Chief Clerk's database |  |  |  |  |  |  |
| 9 | I.A.*7.* | Provide Charter Number from Secretary of State database |  |  |  |  |  |  |
| 10 | I.B. | **Provide Facility Owner if different than the Facility Operator, mailing address and telephone number** | 305.43(b); 361.087 (TX Health & Safety Code) |  |  |  |  |  |
| 11 | I.C. | **Facility Contact** | 305.45(a) | NA | NA | NA |  |  |
| 12 | I.C.1. | Provide primary contact information (mailing address and telephone number) |  |  |  |  |  |  |
| 13 | I.C.2. | If applicable, register with the Texas Secretary of State office and provide mailing address |  |  |  |  |  |  |
| 14 | I.C.3. | Provide contact information (mailing address, telephone number, fax number, and e-mail address if available) for person responsible for public notice |  |  |  |  |  |  |
| 15 | I.C.4. | Provide public place (name and physical address) in the county where application will be made available for review |  |  |  |  |  |  |
| 16 | I.C.5. | If the applicant is proposing a new industrial or hazardous waste (HW) facility, they must hold a public meeting in the county in which the facility is proposed to be located and publish notice of the meeting |  | NA | NA | NA |  |  |
| 17 | I.D. | **Application Type and Facility Status** | 305.42; 305 subchapter D | NA | NA | NA |  |  |
| 18 | I.D.1. | Select all applicable categories of application type and facility status |  |  |  |  |  |  |
| 19 | I.D.2. | Indicate whether the application is part of a Consolidated Permit Processing request |  |  |  |  |  |  |
| 20 | I.D.3. | Indicate if confidential information is included |  |  |  |  |  |  |
| 21 | I.D.4. | Select all items that apply for either a proposed or existing hazardous waste management facility |  |  |  |  |  |  |
| 22 | I.D.5. | Indicate whether the facility is within the Coastal Management Program boundary |  |  |  |  |  |  |
| 23 | I.D.6. | Provide a description of all changes requested in the application |  |  |  |  |  |  |
| 24 | I.D.7. | Provide total acreage of the facility being permitted |  |  |  |  |  |  |
| 25 | I.D.8. | Provide name of drainage basin and segment where facility is located |  |  |  |  |  |  |
| 26 | I.E. | **Facility Siting Summary** |  | NA | NA | NA |  |  |
| 27 | I.E.1. | Indicate whether the facility is located within a 100-yr floodplain | 335.204(a)(1); 270.14(b)(11)(iii) |  |  |  |  |  |
| 28 | I.E.2. | Indicate whether the facility is located in wetlands | 335.204(a)(2) |  |  |  |  |  |
| 29 | I.E.3. | Indicate whether the facility is located in the critical habitat of an endangered species of plant or animal | 335.204(a)(8) |  |  |  |  |  |
| 30 | I.E.4. | Indicate whether the facility is located on the recharge zone of a sole-source aquifer | 335.204(a)(3) |  |  |  |  |  |
| 31 | I.E.5. | Indicate whether the facility is located in an area overlying a regional aquifer | 335.204(a)(4) |  |  |  |  |  |
| 32 | I.E.6. | For a new commercial HW management facility or an areal expansion of an existing commercial HW management facility, indicate whether the facility is within 1/2 mi. of an established residence, church, school, day care, etc.; If yes, TCEQ will not issue a permit for this facility | 335.205(a)(2-5) |  |  |  |  |  |
| 33 | I.E.7. | Indicate whether the facility is in an area in which governing body and municipality has prohibited the processing of municipal HW and individual solid waste | 361.095; 361.096; 361.0961 (TX. Health & Safety Code) |  |  |  |  |  |
| 34 | I.F. | **Wastewater and Stormwater Disposition: If yes, indicate existing or proposed discharge permit number** | 30 TAC305(a)(7) WDW, TPDES, TCEQ |  |  |  |  |  |
| 35 | I.F.1. | Indicate whether waste disposal is to be accomplished by a waste disposal well. If yes, list all of the WDW permit numbers |  |  |  |  |  |  |
| 36 | I.F.2. | Indicate whether point source discharge of effluent or rainfall runoff occur as a result of the proposed activities |  |  |  |  |  |  |
| 37 | I.F.3. | If discharge of effluent or rainfall runoff occurs and the discharge is regulated by a TPDES or TCEQ permit, provide the corresponding permit numbers |  |  |  |  |  |  |
| 38 | I.F.4. | If discharge of effluent or rainfall runoff occurs and it is not regulated by a TPDES or TCEQ permit, provide the date on which those permit applications were filed |  |  |  |  |  |  |
| 39 | I.G. | **Information required to provide notice:** |  | NA | NA | NA |  |  |
| 40 | I.G.*1.* | Provide state officials list | 30 TAC 39.103(b) |  |  |  |  |  |
| 41 | I.G.*2.* | Provide local officials list | 30 TAC 39.103(c) |  |  |  |  |  |
| 42 | I.G.*3.* | Provide adjacent landowners list: submit landowners map and mailing list in proper format (CD or Printed Labels, 30 addresses per/page in 3 columns of 10, USPS Machine Readable format) | 305.45(a)(6)(A-D) |  |  |  |  |  |
| 43 | I.G.*4.* | Indicate if Bilingual Notice is required |  |  |  |  |  |  |
| 44 | I.H. | **Provide a current Core Data form** |  |  |  |  |  |  |
| 45 | I.I. | **Provide an original signature on application with proof of authorization and notary seal** | 305.44; 270.11 |  |  |  |  |  |
| 46 | II. | **Facility Siting Criteria** |  | NA | NA | NA |  |  |
| 47 | II.A. | **Indicate whether the facility is located or proposed to be located in:** |  | NA | NA | NA |  |  |
| 48 | II.A.1. | Wetlands; Provide the source of information; If yes, the TCEQ shall not issue a permit for a new hazardous waste (HW) management facility or areal expansion per 335.205(a)(1) | 335.204(a)(2), (b)(2), (c)(2), (d)(2), and/or (e)(2) |  |  |  |  |  |
| 49 | II.A.2. | Critical habitat; Provide a letter from Texas Parks and Wildlife Department; If yes, Section V should include information to demonstrate the design, construction, and operational features of the facility will prevent adverse effects resulting from a release in such areas | 335.204(a)(8), (b)(10), (c)(9), (d)(9), and/or (e)(11) |  |  |  |  |  |
| 50 | II.A.3. | On the recharge zone of a sole-source aquifer; Provide the source of information; If yes, submit Section V information to demonstrate adequate secondary containment - hazardous waste units such as landfills, land treatment facilities, surface impoundments and waste piles cannot be located on the recharge zone of a sole-source aquifer | 335.204(a)(3), (b)(3), (c)(3), (d)(3) , and/or (e)(3) |  |  |  |  |  |
| 51 | II.A.4. | An area overlying a regional aquifer; Provide the source of information; If facility overlies a regional aquifer, information should be provided either in Section V, to address the requirements of 335.204(a-e)(4)(B), or in Section VI, to address the requirements of 335.204(a-e)(4)(A) | 335.204(a)(4), (b)(4), (c)(4), (d)(4), and/or (e)(4) |  |  |  |  |  |
| 52 | II.A.5. | Areas where soil unit(s) within 5 ft. of containment structure, or treatment zone that have unified soil classification of GW, GP, GM, GC, SW, SP, or SM, or hydraulic conductivity greater than 10-5 cm/sec; Provide the source of information; If the facility overlies soils meeting these characteristics, information should be provided either in Section V, to address the requirements of 335.204(5)(A) or Section VI, to address the requirements of 335.204(5)(B) | 335.204(a)(5), (b)(5), (c)(5), (d)(5), and/or (e)(5) |  |  |  |  |  |
| 53 | II.A.6. | Areas of direct drainage within one mile of a lake at its maximum conservation pool level; Provide verification of drainage information | 335.204(a)(6), (b)(7), (c)(6), (d)(6), and/or (e)(8) |  |  |  |  |  |
| 54 | II.A.7. | Areas of geologic process, including but not limited to erosion, submergence, subsidence, faulting, karst formation, flooding in alluvial flood wash zones, meandering river bank cuttings, or earthquakes; Provide verification of geologic process information | 335.204(a)(7), (b)(8), (c)(7), (d)(7), and/or (e)(9) |  |  |  |  |  |
| 55 | II.A.8. | Within 30 feet of the upthrown side or 50 feet of the downtown side of the actual or conferred expression of a fault; Provide the source of information | 335.204(a)(9), (b)(12), (c)(11), (d)(11), and/or (e)(13) |  |  |  |  |  |
| 56 | II.B. | **Additional requirements for land treatment facilities.** | 335.204(b) | NA | NA | NA |  |  |
| 57 | II.B.1. | Indicate whether the land treatment facility located or proposed to be located is within 1000 ft. of an established residence, church, school, daycare center, etc.; If yes, TCEQ will not issue a permit for a new HW land treatment unit or areal expansion for an existing land treatment unit per 335.204(b)(6) and 335. 205(a) | 335.204(b)(6) |  |  |  |  |  |
| 58 | II.B.2.a. | Indicate whether the land treatment facility located or proposed to be located is within 1000 ft. of an area subject to coastal shoreline erosion which is protected by a barrier island or peninsula; If yes, Section V.F must include information to address the adverse effects | 335.204(b)(9) |  |  |  |  |  |
| 59 | II.B.2.b. | Indicate whether the land treatment facility located or proposed to be located is within 5000 ft. of an area subject to coastal shoreline erosion which is unprotected by a barrier island or peninsula; If yes, Section V.F must include information to address the adverse effects | 335.204(b)(9) |  |  |  |  |  |
| 60 | II.B.3. | Indicate whether the land treatment facility located or proposed to be located is on a barrier island or peninsula; If yes, permit will not be issued for a new HW land treatment unit or an areal expansion of an existing land treatment unit per 335.204(b)(11) and 335. 205(a)(1) | 335.204(b)(11) |  |  |  |  |  |
| 61 | II.C. | **Additional requirements for Waste Piles** | 335.204(c) | NA | NA | NA |  |  |
| 62 | II.C.1.a. | Indicate whether the waste pile is located or proposed to be located within 1000 ft. of an area subject to active coastal shoreline erosion which is protected by a barrier island or peninsula; If yes, Section V.E must include information to address the adverse effects | 335.204(c)(8) |  |  |  |  |  |
| 63 | II.C.1.b. | Indicate whether the waste pile is located or proposed to be located within 5000 ft. of an area subject to active coastal shoreline erosion which is unprotected by a barrier island or peninsula; If yes, Section V.E must include information to address the adverse effects | 335.204(c)(8) |  |  |  |  |  |
| 64 | II.C.2. | Indicate whether the waste pile is located or proposed to be located on a barrier island or peninsula; If yes, permit will not be issued for a new HW pile or an areal expansion of an existing waste pile | 335.204(c)(10) |  |  |  |  |  |
| 65 | II.D. | **Additional requirements for storage surface impoundments:** | 335.204(d) | NA | NA | NA |  |  |
| 66 | II.D.1.a. | Indicate whether the storage surface impoundment is located or proposed to be located within 1000 ft. of an area subject to active coastal shoreline erosion which is protected by a barrier island or peninsula; If yes, Section V.D must include information to address the adverse effects | 335.204(d)(8) |  |  |  |  |  |
| 67 | II.D.1.b. | Indicate whether the storage surface impoundment is located or proposed to be located within 5000 ft. of an area subject to active shoreline erosion unprotected by a barrier island or peninsula; If yes, Section V.D must include information to address the adverse effects | 335.204(d)(8) |  |  |  |  |  |
| 68 | II.D.2. | Indicate whether the storage surface impoundment is located or proposed to be located on a barrier island or peninsula; If yes, permit will not be issued for a new HW storage surface impoundment or an areal expansion of an existing surface impoundment | 335.204(d)(10) |  |  |  |  |  |
| 69 | II.E. | **Additional requirements of landfills (and surface impoundments closed as landfills with waste in place):** | 335.204(e) | NA | NA | NA |  |  |
| 70 | II.E.1. | Indicate whether the landfill is located or proposed to be located within 1000 ft. established residence, school, church, school, daycare center, etc.; If yes, permit will not be issued for a new HW landfill unit or an areal expansion of an existing landfill unit | 335.204(e)(6) |  |  |  |  |  |
| 71 | II.E.2. | For the new commercial HW landfill, indicate whether it is proposed to be located in 100-yr floodplain; If yes, permit will not be issued for a new commercial HW landfill or an areal expansion of an existing landfill per 335.204(e)(7) and 335. 205(a)(1) | 335.204(e)(7) |  |  |  |  |  |
| 72 | II.E.3.a. | Indicate whether the landfill is located or proposed to be located within 1000 ft. of an area subject to active shoreline erosion protected by barrier island or peninsula; If yes, Section V.G must include information to address the adverse effects | 335.204(e)(10) |  |  |  |  |  |
| 73 | II.E.3.b. | Indicate whether the landfill is located or proposed to be located within 5000 ft. of an area subject to active coastal shoreline unprotected by barrier island or peninsula; If yes, Section V.G must include information to address the adverse effects | 335.204(e)(10) |  |  |  |  |  |
| 74 | II.E.4. | Indicate whether the landfill is located or proposed to be located on a barrier island or peninsula; If yes, permit will not be issued for a new HW landfill unit or an areal expansion of an existing landfill unit | 335.204(e)(12); 335.205(a)(1) |  |  |  |  |  |
| 75 | II.F. | **Flooding: Include FIA maps and source of data in the application** | 270.14(b)(11)(iii); 305.50(a)(11) |  |  |  |  |  |
| 76 | II.F.1. | Indicate whether the facility is located or proposed to be located within 100-yr Floodplain; If yes, complete II.F.2-4, providing supporting documentation; Note: For an application for a proposed HW management facility, aside from the flood plain maps prepared by FEMA, additional information may be necessary for a flood plain determination; If no, do not complete II.F.2-4 | 270.14(b)(11)(iii) |  |  |  |  |  |
| 77 | II.F.2. | Provide information defining the 100-year Flood levels | 270.14(b)(11)(iii) |  |  |  |  |  |
| 78 | II.F.3. | Indicate whether Flood Protection devices or structures are provided or proposed at the facility: | 270.14(b)(11)(iv) |  |  |  |  |  |
| 79 | II.F.3.a. | If yes, submit Section V an engineering analysis to indicate the hydrodynamic and hydrostatic per 270.14(b)(11)(iv)(A), and | 270.14(b)(11)(iv) |  |  |  |  |  |
| 80 | II.F.3.b. | Provide in Section V a plan and schedule for constructing flood protection devises per 270.14(b)(11)(iv)( B) | 270.14(b)(11)(iv) |  |  |  |  |  |
| 81 | II.F.3.*c.* | NOTE: Any landfill, storage/treatment facility, surface impoundment, waste pile, or land treatment unit within the 100-year floodplain must be designed, constructed, operated, and maintained to prevent physical transport of any HW by a 100-year flood event. | 335.204(a)(1), (b)(1), (c)(1), (d)(1), and/or (e)(1) | NA | NA | NA |  |  |
| 82 | II.F.4. | If the answer to Question II.F.3 is No, provide a description of the procedures to remove wastes to safety before flooding occurs: | 270.14(b)(11)(iv)(C) |  |  |  |  |  |
| 83 | II.F.4.a. | Timing of movement of wastes relative to flood levels | 270.14(b)(11)(iv)(C)(1) |  |  |  |  |  |
| 84 | II.F.4.b. | Location to which wastes will be moved and a demonstration that these facilities will be eligible to receive HW | 270.14(b)(11)(iv)(C)(2) |  |  |  |  |  |
| 85 | II.F.4.c. | Procedures and availability of equipment and personnel to be used | 270.14(b)(11)(iv)(C)(3) |  |  |  |  |  |
| 86 | II.F.4.d. | Potential and prevention for accidental discharges of waste | 270.14(b)(11)(iv)(C)(4) |  |  |  |  |  |
| 87 | II.G. | **Additional information requirements** |  | NA | NA | NA |  |  |
| 88 | II.G.1. | For a new HW management facility, provide a legible map of local land-use plans and major routes of travel covering at least 5 miles from the facility | 305.50(a)(10)(A) & (D) |  |  |  |  |  |
| 89 | II.G.2. | For a new commercial HW management facility or the subsequent areal expansion of the facility or facility unit, provide a map showing the nearest established residence, schools, church, day care center, surface water body used for a public drinking water supply, and dedicated park | 305.45(a)(6), 335.202, 335.204(a)(6), (b)(6) and (7), (c)(6), (d)(6), &/or (e)(6 and 8) |  |  |  |  |  |
| 90 | II.G.3. | For a new commercial HW management facility provide: | 305.50(a)(12)(A) | NA | NA | NA |  |  |
| 91 | II.G.3.a. | Average number, gross weight, type and size of vehicles used to transport HW | 305.50(a)(12)(A)(i) |  |  |  |  |  |
| 92 | II.G.3.b. | Major highways nearest the facility irrespective of distance | 305.50(a)(12)(A)(ii) |  |  |  |  |  |
| 93 | II.G.3.c. | Public roadways within 2.5 mile radius from facility | 305.50(a)(12)(A)(iii) |  |  |  |  |  |
| 94 | II.G.4. | Provide the name and location of other HW facilities within 0.5 miles of the new on-site HW management facility and the quantity of HW generated or received annually at those facilities | 305.50(a)(10)(B-C) |  |  |  |  |  |
| 95 | II.G.5. | Provide the name and location of HW facilities within 1.0 mile of the new commercial HW management facility and the quantity of HW generated or received annually at those facilities | 305.50(a)(10)(B-C) |  |  |  |  |  |
| 96 | II.G.6. | For existing/proposed HW disposal units, provide documentation of deed recordation | 335.5; 270.14(b)(14) |  |  |  |  |  |
| 97 | II.G.7. | If a surface impoundment or landfill (including post-closure) is permitted, provide exposure information; This information will be considered separately from TCEQ application completeness determination | 305.50(a)(8) 270.10(j) |  |  |  |  |  |
| 98 | II.G.8. | For a new HW management facility or a capacity expansion of an existing HW management facility, provide Section VI.A.1.a | 305.50(a)(4)(D) 305.50(a)(10)(E) |  |  |  |  |  |
| 99 | III. | **Facility Management** |  | NA | NA | NA |  |  |
| 100 | III.A. | **Compliance History and Applicant Experience:** |  | NA | NA | NA |  |  |
| 101 | III.A.1. | Provide listings of all solid waste management sites in Texas owned, operated, or controlled by the applicant | 305.50(a)(2) |  |  |  |  |  |
| 102 | III.A.2. | For a new commercial hazardous waste (HW) management facility, provide a summary of the applicant’s experience in HW management | 305.50(a)(12)(F) |  |  |  |  |  |
| 103 | III.B. | **Personnel Training Plan:** | 264.16 | NA | NA | NA |  |  |
| 104 | III.B.*1.* | Provide an outline of training program: | 264.16(a)(1-3) |  |  |  |  |  |
| 105 | III.B.*1.a.* | Facility personnel must complete the program required training 6 months after the date of employment | 264.16(b) |  |  |  |  |  |
| 106 | III.B.*1.b.* | Annual review | 264.16(c) |  |  |  |  |  |
| 107 | III.B.*1.c.* | Job title/job description | 264.16(d)(1-4) |  |  |  |  |  |
| 108 | III.B.*1.d.* | Training records | 264.16(e) |  |  |  |  |  |
| 109 | III.C. | **Security:** |  | NA | NA | NA |  |  |
| 110 | III.C.*1.* | Provide a description of how the facility complies with security requirements: | 264.14 |  |  |  |  |  |
| 111 | III.C.*1.a.* | 24-hr surveillance system | 264.14(b)(1) |  |  |  |  |  |
| 112 | III.C.*1.b.* | Artificial or natural barrier | 264.14(b)(2)(i) |  |  |  |  |  |
| 113 | III.C.*1.c.* | Means to control entry | 264.14(b)(2)(ii) |  |  |  |  |  |
| 114 | III.C.*1.d.* | Warning signs | 264.14(c) |  |  |  |  |  |
| 115 | III.C.*1.e.* | Demonstration that the previous security items are not needed to prevent contact or disturbance of waste | 264.14(a) |  |  |  |  |  |
| 116 | III.D. | **Inspection Schedule** | 264.15; 264.33 | NA | NA | NA |  |  |
| 117 | III.D.*1.* | Complete and submit Table III.D. - Inspection Schedule in hard copy and editable electronic format; Table must show: |  |  |  |  |  |  |
| 118 | III.D.*1.a.* | Inspection of monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment, etc. | 264.15(b)(1) |  |  |  |  |  |
| 119 | III.D.*1.b.* | Types of problems expressed as deficiencies indicating a need for corrections and/or repairs | 264.15(b)(3) |  |  |  |  |  |
| 120 | III.D.*1.c.* | Frequency of inspections | 264.15(b)(4) |  |  |  |  |  |
| 121 | III.D.*1.d.* | Areas subject to spills (i.e., loading and unloading areas) must be inspected daily when in use | 264.15(b)(4) |  |  |  |  |  |
| 122 | III.D.*1.e.* | Specific process inspection requirements & remedies | 264.15(c) |  |  |  |  |  |
| 123 | III.D.*1.f.* | Testing and maintenance of equipment; & Sample of inspection log form | 264.15(d); 264.33 |  |  |  |  |  |
| 124 | III.D.*1.g.* | CONTAINER STORAGE AREA INSPECTION: (weekly) |  |  |  |  |  |  |
| 125 | III.D.*1.g.1.* | Leaks, spills, and deteriorations caused by corrosion or other factors (weekly) | 264.174 |  |  |  |  |  |
| 126 | III.D.*1.g.2.* | Containment system for Container Storage Areas: |  |  |  |  |  |  |
| 127 | III.D.*1.g.2.a.* | Free of cracks, gaps, leaks spills, precipitation |  |  |  |  |  |  |
| 128 | III.D.*1.g.2.b.* | Area must be sloped; |  |  |  |  |  |  |
| 129 | III.D.*1.g.2.c.* | Containment contain 10% vol. of containers or the vol. of the largest containers |  |  |  |  |  |  |
| 130 | III.D.*1.g.2.d.* | Containment run-on system |  |  |  |  |  |  |
| 131 | III.D.*1.g.2.e.* | Spills, leaks, accumulated precipitation |  |  |  |  |  |  |
| 132 | III.D.*1.g.3.* | Containers do not contain free liquids |  |  |  |  |  |  |
| 133 | III.D.*1.g.4.* | Loading and unloading areas for Container Storage Areas |  |  |  |  |  |  |
| 134 | III.D.*1.h.* | TANK SYSTEM INSPECTION: |  |  |  |  |  |  |
| 135 | III.D.*1.h.1.* | Tank overfilling control | 264.195 |  |  |  |  |  |
| 136 | III.D.*1.h.2.* | Above ground portions (daily) | 264.195(c)(1) |  |  |  |  |  |
| 137 | III.D.*1.h.3.* | Tank monitoring data and leak detection equipment (daily) | 264.195(b) |  |  |  |  |  |
| 138 | III.D.*1.h.4.* | Tank construction materials including secondary containment and surrounding area (daily) | 264.195(c)(2) |  |  |  |  |  |
| 139 | III.D.*1.h.5.* | Ancillary Equipment without secondary containment must be inspected each operating day | 264.195(f) |  |  |  |  |  |
| 140 | III.D.*1.h.6.* | Cathodic protection system: | 264.195(g) |  |  |  |  |  |
| 141 | III.D.*1.h.6.a.* | Six months after installation and annually thereafter | 264.195(g)(1) |  |  |  |  |  |
| 142 | III.D.*1.h.6.b.* | Source of impressed current (bi-monthly) | 264.195(g)(2) |  |  |  |  |  |
| 143 | III.D.*1.h.7.* | Facilities requesting a variance from secondary containment must: | 264.193(h) |  |  |  |  |  |
| 144 | III.D.*1.h.7.a.* | Perform a leak test for non-enterable underground tanks (annually) | 264.193(i)(1) |  |  |  |  |  |
| 145 | III.D.*1.h.7.b.* | Perform a leak test for other than non-enterable underground tanks | 264.193(i)(2) |  |  |  |  |  |
| 146 | III.D.*1.h.7.c.* | Ancillary equipment/leak test integrity assessment (annually) | 264.193(i)(3) |  |  |  |  |  |
| 147 | III.D.*1.h.7.d.* | Maintain assessment records | 264.193(i)(4) |  |  |  |  |  |
| 148 | III.D.*1.h.7.e.* | Response to leaks following 264.196 | 264.193(i)(5) |  |  |  |  |  |
| 149 | III.D.*1.i.* | SURFACE IMPOUNDMENT INSPECTIONS: (weekly and after storms): | 264.226(b) |  |  |  |  |  |
| 150 | III.D.*1.i.1.* | Deterioration, malfunction, or improper overtopping control system | 264.226(b)(1) |  |  |  |  |  |
| 151 | III.D.*1.i.2.* | Sudden drops in the level of impoundment contents | 264.226(b)(2) |  |  |  |  |  |
| 152 | III.D.*1.i.3.* | Deterioration of containment devices | 264.226(b)(3) |  |  |  |  |  |
| 153 | III.D.*1.i.4.* | Leak detection system inspected at least once each week during active life and closure period | 264.226(d)(1) |  |  |  |  |  |
| 154 | III.D.*1.j.* | WASTE PILE INSPECTION: (weekly and after storms): | 264.254(b) |  |  |  |  |  |
| 155 | III.D.*1.j.1.* | Run-on and run-off control system inspected for deterioration, malfunction, or improper operation of | 264.254(b)(1) |  |  |  |  |  |
| 156 | III.D.*1.j.2.* | Wind dispersal system | 264.254(b)(2) |  |  |  |  |  |
| 157 | III.D.*1.j.3.* | Leachate collection and removal systems | 264.254(b)(3) |  |  |  |  |  |
| 158 | III.D.*1.j.4*. | Leak detection system | 264.254(c) |  |  |  |  |  |
| 159 | III.D.*1.k.* | LAND TREATMENT UNIT INSPECTION: (weekly and after storms) | 264.273(g) |  |  |  |  |  |
| 160 | III.D.*1.k.1.* | Deterioration, malfunctions, or improper operation of run-on and run-off control systems | 264.273(g)(1) |  |  |  |  |  |
| 161 | III.D.*1.k.2.* | Wind dispersal control system | 264.273(g)(2) |  |  |  |  |  |
| 162 | III.D.*1.l.* | LANDFILL INSPECTION: (weekly and after storms) | 264.303(b) |  |  |  |  |  |
| 163 | III.D.*1.l.1.* | Deterioration, malfunctions, or improper operation of run-on and run-off control systems | 264.303(b)(1) |  |  |  |  |  |
| 164 | III.D.*1.l.2.* | Wind dispersal control system | 264.303(b)(2) |  |  |  |  |  |
| 165 | III.D.*1.l.3.* | Leachate collection and removal system inspected for presence of leachate and proper function | 264.303(b)(3) |  |  |  |  |  |
| 166 | III.D.*1.l.4.* | Amount of liquids removed from each leak detection system sump recorded and pump operating levels meet permit specified values | 264.303(c) |  |  |  |  |  |
| 167 | III.D.*1.m.* | INCINERATOR INSPECTION: | 264.347 |  |  |  |  |  |
| 168 | III.D.*1.m.1.* | Incinerator and associated equipment visual inspection (daily) | 264.347(b) |  |  |  |  |  |
| 169 | III.D.*1.m.2.* | Incinerator waste feed cut-off system and associated alarms tested (weekly) | 264.347(c) |  |  |  |  |  |
| 170 | III.D.*1.n.* | BOILER AND INDUSTRIAL FURNACES INSPECTION: | 266.102(e)(8) |  |  |  |  |  |
| 171 | III.D.*1.n.1.* | BIF and associated equipment- visual inspection (daily) | 266.102(e)(8)(iii) |  |  |  |  |  |
| 172 | III.D.*1.n.2.* | Feed cut-off system and associated alarms (weekly) | 266.102(e)(8)(iv) |  |  |  |  |  |
| 173 | III.D.*1.o.* | DRIP PAD INSPECTION: (weekly and after storms): | 264.574(b) |  |  |  |  |  |
| 174 | III.D.*1.o.1.* | Deterioration, malfunctions, or improper operation of run-on and run-off control systems | 264.574(b)(1) |  |  |  |  |  |
| 175 | III.D.*1.o.2.* | Presence of leakage in the leak detection system | 264.574(b)(2) |  |  |  |  |  |
| 176 | III.D.*1.o.3.* | Deterioration or cracking of the drip pad surface | 264.574(b)(3) |  |  |  |  |  |
| 177 | III.D.*1.p.* | MISCELLANEOUS UNIT INSPECTION | 264.602 |  |  |  |  |  |
| 178 | III.D.*1.q.* | CONTAINMENT BUILDING INSPECTION | 264.1101 |  |  |  |  |  |
| 179 | III.E. | **Contingency Plan (Does not apply to post-closure application)** | 335.152(a)(1)(C and D); 264 subparts C and D | NA | NA | NA |  |  |
| 180 | III.E.*~.a.* | Provide amendments to SPCC Plan as applicable | 264.52(b) |  |  |  |  |  |
| 181 | III.E.*~.b.* | Provide general information including a facility drawing showing location of all emergency equipment, emergency coordinators, and statements that the emergency coordinator is authorized to commit the resources of the facility | 264.52; 264.55 |  |  |  |  |  |
| 182 | III.E.*~.c.* | Provide location of waste and demonstrate that facilities will be eligible to receive HW | 270.14(b)(11)(iv)(C)(2) |  |  |  |  |  |
| 183 | III.E.*~.d.* | Provide the potential for accidental discharges of waste during movement | 270.14(b)(11)(iv)(C)(4) |  |  |  |  |  |
| 184 | III.E.*~.e.* | Provide a copy of Contingency Plan to appropriate local authorities | 264.53 |  |  |  |  |  |
| 185 | III.E.*~.f.* | Amend the contingency plan as appropriate | 264.54 |  |  |  |  |  |
| 186 | III.E.*~.g.* | Describe emergency procedures, notification & post-incident written report | 335.153; 264.56 |  |  |  |  |  |
| 187 | III.E.1. | Complete and submit Table III.E.1. - Arrangements With Local Authorities in hard copy and editable electronic format: | 264.37; 264.52(c) |  |  |  |  |  |
| 188 | III.E.1.*a.* | Provide arrangements to familiarize local authorities with: | 264.37(a)(1) |  |  |  |  |  |
| 189 | III.E.1.*a.1.* | Facility layout | 264.37(a)(1) |  |  |  |  |  |
| 190 | III.E.1.*a.2.* | Properties of HW handled | 264.37(a)(1) |  |  |  |  |  |
| 191 | III.E.1.*a.3.* | Possible injuries form fires, explosions, or releases of HW at the facility | 264.37(a)(4) |  |  |  |  |  |
| 192 | III.E.1.*a.4.* | Facility personnel work areas | 264.37(a)(1) |  |  |  |  |  |
| 193 | III.E.1.*a.5.* | Facility entrances | 264.37(a)(1) |  |  |  |  |  |
| 194 | III.E.1.*a.6.* | Evacuation routes | 264.37(a)(1) |  |  |  |  |  |
| 195 | III.E.2. | Complete and submit Table III.E.2 - Emergency Coordinators (list of addresses and telephone numbers) in hard copy and editable electronic format; Must include alternate emergency coordinator(s) | 264.52(d) |  |  |  |  |  |
| 196 | III.E.3. | Complete and submit Table II.E.3 - Emergency Equipment in hard copy and editable electronic format including: | 264.32; 264.52(e) |  |  |  |  |  |
| 197 | III.E.3.*a.* | Fire-extinguishing system | 264.32(c); 264.52(e) |  |  |  |  |  |
| 198 | III.E.3.*b.* | Spill-control equipment | 264.32(c); 264.52(e) |  |  |  |  |  |
| 199 | III.E.3.*c.* | Communications and alarm systems (internal and external) | 264.32(a) and (b); 264.52(e) |  |  |  |  |  |
| 200 | III.E.3.*d.* | Decontamination equipment | 264.32(c); 264.52(e) |  |  |  |  |  |
| 201 | III.E.3.*e.* | Water at adequate volume & pressure, foam producing equipment, sprinklers, or water spray systems | 264.32(d); 264.52(e) |  |  |  |  |  |
| 202 | III.E.3.*f.* | Testing and Maintenance of equipment (May include as Part of Inspection Schedule) | 264.33; 264.15(b)(1) |  |  |  |  |  |
| 203 | III.E.3.*g.* | Access to communications or alarm system | 264.34 |  |  |  |  |  |
| 204 | III.E.3.*h.* | Evacuation plan and signal | 254.52(f) |  |  |  |  |  |
| 205 | III.F. | **Emergency Response Plan (For new commercial HW management facility only)** | 305.50(a)(12)(C-D) | NA | NA | NA |  |  |
| 206 | III.F.1. | Provide practice drills: |  |  |  |  |  |  |
| 207 | III.F.1.*a.* | Timing of practice evacuation drills | 305.50(a)(12)(C)(i)(I) |  |  |  |  |  |
| 208 | III.F.1.*b.* | Efficiency and safety of evacuation | 335.183(d)(11) |  |  |  |  |  |
| 209 | III.F.2. | Provide contracts if applicable: |  |  |  |  |  |  |
| 210 | III.F.2.*a.* | Contracts with any private corporation, municipality, or county | 305.50(a)(12)(C)(i)(I) |  |  |  |  |  |
| 211 | III.F.3. | Provide weather data: |  |  |  |  |  |  |
| 212 | III.F.3.*a.* | Historical weather data | 305.50(a)(12)(C)(i)(III) |  |  |  |  |  |
| 213 | III.F.3.*b.* | Seasonally prevailing winds and weather | 335.183(d)(3) |  |  |  |  |  |
| 214 | III.F.4. | Define worst-case emergencies for proposed facility | 305.50(a)(12)(C)(i)(IV) |  |  |  |  |  |
| 215 | III.F.5. | Provide training program for emergency response personnel, including requirements described in regulations | 305.50(a)(12)(C)(i)(V); 264.16 29; CFR 1910.120(e); EPA Fed Reg. 311; TX Haz. Comm. Act SARA 302, 304, 311, 312, and 313 |  |  |  |  |  |
| 216 | III.F.6. | Describe and identify first responders: |  |  |  |  |  |  |
| 217 | III.F.6.*a.* | Identification of first responders | 305.50(a)(12)(C)(i)(VI) |  |  |  |  |  |
| 218 | III.F.6.*b.* | Length of time for first response | 335.183(d)(6) |  |  |  |  |  |
| 219 | III.F.6.*c.* | Equipment and trained personnel available on first response basis | 335.183(d)(8) |  |  |  |  |  |
| 220 | III.F.7. | Identify local or regional emergency medical services: | 305.50(a)(12)(C)(i)(VII) |  |  |  |  |  |
| 221 | III.F.7.*a.* | Availability of local emergency response resources | 335.183(d)(4) |  |  |  |  |  |
| 222 | III.F.8. | Provide pre-disaster plan | 305.50(a)(12)(C)(i)(VIII) |  |  |  |  |  |
| 223 | III.F.9. | Describe mechanism for notifying first respondent and all applicable government agencies (i.e. TCEQ, TPWD, TCEQ Office of Air Quality, GLO, TDH, & TRRC) | 305.50(a)(12)(C)(i)(IX) |  |  |  |  |  |
| 224 | III.F.10. | Provide evidence of Local Emergency Planning Committee and compliance with SARA Title III | 305.50(a)(12)(C)(i)(X) |  |  |  |  |  |
| 225 | III.F.11. | Provide details of medical response: |  |  |  |  |  |  |
| 226 | III.F.11.*a.* | Medical response capabilities | 305.50(a)(12)(C)(i)(XI) |  |  |  |  |  |
| 227 | III.F.11.*b.* | Ability to deal with various types of injuries | 335.183(d)(9) |  |  |  |  |  |
| 228 | III.F.11.*c.* | Other factors that will be reviewed and considered for permitting decisions on approvals of new commercial HW management facilities: | 335.183(d) | NA | NA | NA |  |  |
| 229 | III.F.11.*c.1.* | Geology of the area | 335.183(d)(1) |  |  |  |  |  |
| 230 | III.F.11.*c.2.* | Drainage patterns | 335.183(d)(2) |  |  |  |  |  |
| 231 | III.F.11.*c.3.* | Proximity of human exposure and/or sensitive environmental receptors | 335.183(d)(5) |  |  |  |  |  |
| 232 | III.F.11.*c.4.* | Trained response teams on-site | 335.183(d)(7) |  |  |  |  |  |
| 233 | III.F.11.*c.5.* | Ability to respond to environmental contamination | 335.183(d)(10) |  |  |  |  |  |
| 234 | III.F.11.*d.* | Provide justification of waiver or documentation of preparedness and prevention requirements of 264 subpart C | 270.14(b)(6) |  |  |  |  |  |
| 235 | IV. | **Wastes and Waste Analysis** |  | NA | NA | NA |  |  |
| 236 | IV.A.*~.* | **Complete and submit Table IV.A. - Waste Management Information for new hazardous waste (HW) management facility or for a facility capacity expansion in hard copy and editable electronic format** | 305.50(a)(9) |  |  |  |  |  |
| 237 | IV.A.*~.a.* | For on-site, list “on-site” for the waste source; For off-site, list the source of the waste; If unknown, identify potential sources |  |  |  |  |  |  |
| 238 | IV.B. | **Complete and submit Table IV.B. - Waste Managed In Permitted Units in hard copy and editable electronic format** | 335.501-335.515; 261.21-261.24; 261.30-261.33 |  |  |  |  |  |
| 239 | IV.C. | **Complete and submit Table IV.C. - Sampling and Analytical Methods in hard copy and editable electronic format** | 264.13(a), (b)(1-4), and (c)(2); 261 Appendix I; 261 Appendix II; 261 Appendix III; or any sampling method approved by EPA; 264.13(b)(5-8) |  |  |  |  |  |
| 240 | IV.D. | **Provide Waste Analysis Plan:** |  |  |  |  |  |  |
| 241 | IV.D.*~.a.* | Quality Control/Quality Assurance (Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, 1987, as revised; | SW-846; TCEQ QAPP; Part 261, Appendix I; 260.20; 260.21 | NA | NA | NA |  |  |
| 242 | IV.D.*~.b.* | Latest version of the Quality Assurance Project Plan for the Texas Commission on Environmental Quality for Environmental Monitoring and Measurement Activities Relating to the Resource Conservation and Recovery Act) |  | NA | NA | NA |  |  |
| 243 | IV.D.*1.* | For off-site facilities, specify procedures to inspect and analyze each movement of industrial waste received at the facility to ensure it matches the identity of the waste designated on the accompanying shipping ticket | 264.13(c)(1) |  |  |  |  |  |
| 244 | IV.D.*2.* | Provide requirements pertaining to Land Disposal Restrictions | Part 268; 268.7(c); 264.13(a) |  |  |  |  |  |
| 245 | IV.D.*3.* | CONTAINERS: (The Applicant must address the following information and may provide it in the Container Engineering Report with cross reference here, or provide information here and reference it in the Container Engineering Report) | 264 subpart I | NA | NA | NA |  |  |
| 246 | IV.D.*3.a.* | Demonstrate compatibility of waste with containers | 264.172 |  |  |  |  |  |
| 247 | IV.D.*3.b.* | For containers w/o secondary containment system, provide test procedures and results which show that wastes do not contain free liquid; suggested test for free liquid is the Paint Filter Liquid Test (Method 9095) | 270.15(b) |  |  |  |  |  |
| 248 | IV.D.*3.c.* | Provide special requirements for ignitable or reactive wastes | 264.176 |  |  |  |  |  |
| 249 | IV.D.*3.d.* | Provide special requirements for incompatible wastes | 264.177 |  |  |  |  |  |
| 250 | IV.D.*4.* | TANKS: (The Applicant must address the following information and may provide it in the Tanks and Tank System Engineering Report with cross reference here, or provide information here and reference it in the Tank and Tank System Engineering Report) | 264 subpart J | NA | NA | NA |  |  |
| 251 | IV.D.*4.a.* | Provide special requirements for ignitable or reactive wastes | 264.198 |  |  |  |  |  |
| 252 | IV.D.*4.b.* | Provide buffer zone requirements for tanks containing flammable and combustible liquids | 264.198(b) |  |  |  |  |  |
| 253 | IV.D.*4.c.* | Provide special requirements for incompatible wastes | 264.199 |  |  |  |  |  |
| 254 | IV.D.*5.* | SURFACE IMPOUNDMENTS: (The Applicant must address the following information and may provide it in the Surface Impoundment Engineering Report with cross reference here, or provide information here and reference it in the Surface Impoundment Engineering Report) | 264 subpart K | NA | NA | NA |  |  |
| 255 | IV.D.*5.a.* | Provide special requirements for ignitable or reactive wastes | 264.229 |  |  |  |  |  |
| 256 | IV.D.*5.b.* | Provide special requirements for incompatible wastes | 264.23 |  |  |  |  |  |
| 257 | IV.D.*5.c.* | Provide special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027, if applicable | 264.231 |  |  |  |  |  |
| 258 | IV.D.*6.* | WASTE PILES: (The Applicant must address the following information and may provide it in the Waste Pile Engineering Report with cross reference here, or provide information here and reference it in the Waste Pile Engineering Report) | 264 subpart L | NA | NA | NA |  |  |
| 259 | IV.D.*6.a.* | For waste piles that are inside or under a structure, when an exemption from 264.251 is requested, provide test procedures and results, or other documentation or information which shows that the wastes do not contain free liquids when placed on the pile; Suggested test for free liquids, is the Paint Filter Liquid Test (Method 9095) | 264.250(c)(1) |  |  |  |  |  |
| 260 | IV.D.*6.b.* | Demonstrate that the wastes will not generate leachate through decomposition or other reactions while being stored | 264.250(c)(4) |  |  |  |  |  |
| 261 | IV.D.*6.c.* | Provide special requirements for ignitable or reactive wastes | 264.256 |  |  |  |  |  |
| 262 | IV.D.*6.d.* | Provide special requirements for incompatible wastes | 264.257 |  |  |  |  |  |
| 263 | IV.D.*6.e.* | Provide special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027, if applicable | 264.259 |  |  |  |  |  |
| 264 | IV.D.*7.* | LAND TREATMENT UNITS: (The Applicant must address the following information and may provide it in the LTU Engineering Report with cross reference here, or provide information here and reference it in the LTU Engineering Report) | 264 subpart M | NA | NA | NA |  |  |
| 265 | IV.D.*7.a.* | Provide concentration and identification of hazardous constituents | 264.271(b) |  |  |  |  |  |
| 266 | IV.D.*7.b.* | Provide special requirements for ignitable wastes | 264.281 |  |  |  |  |  |
| 267 | IV.D.*7.c.* | Provide special requirements for incompatible wastes | 264.282 |  |  |  |  |  |
| 268 | IV.D.*7.d.* | Provide special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027, if applicable | 264.283 |  |  |  |  |  |
| 269 | IV.D.*8.* | LANDFILLS: (The Applicant must address the following information and may provide it in the Landfill Engineering Report with cross reference here, or provide information here and reference it in the Landfill Engineering Report) | 264 subpart N | NA | NA | NA |  |  |
| 270 | IV.D.*8.a.* | Provide special requirements for ignitable wastes | 264.312 |  |  |  |  |  |
| 271 | IV.D.*8.b.* | Provide special requirements for incompatible wastes | 264.313 |  |  |  |  |  |
| 272 | IV.D.*8.c.* | Provide special requirements for bulk and containerized liquids: | 264.314 |  |  |  |  |  |
| 273 | IV.D.*8.c.1.* | Bulk or non-containerized liquid | 264.314(a) |  |  |  |  |  |
| 274 | IV.D.*8.c.2.* | Containers holding free liquids (Containers holding free liquids must not be placed in landfill) | 264.314(b) |  |  |  |  |  |
| 275 | IV.D.*8.c.3.* | Test procedures and results or documentation to show that wastes do not contain free liquid. Test Method 9095 (Paint Filter Liquid Test) | 264.314(c) |  |  |  |  |  |
| 276 | IV.D.*8.c.4.* | Containers holding free liquids must not be placed in landfill unless nonbiodegradable sorbents are used | 264.314(d)(e) |  |  |  |  |  |
| 277 | IV.D.*8.d.* | Provide special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027, if applicable | 264.317 |  |  |  |  |  |
| 278 | IV.D.*9.* | INCINERATORS (covered under Section V.H) | 335.152 (a)(13); 264 subpart O |  |  |  |  |  |
| 279 | IV.D.*10.* | BOILERS AND INDUSTRIAL FURNACES (covered under Section V.I) | 335.221-225; 266 subpart H |  |  |  |  |  |
| 280 | V. | **Engineering Reports** |  | NA | NA | NA |  |  |
| 281 | V.*~.* | Provide required general information: |  |  |  |  |  |  |
| 282 | V.*~.1.* | Description of procedures, structures, or equipment used at the facility to: | 270.14(b)(8) |  |  |  |  |  |
| 283 | V.*~.1.a.* | Prevent hazards in unloading operations | 270.14(b)(8)(i) |  |  |  |  |  |
| 284 | V.*~.1.b.* | Prevent run-off from hazardous handling | 270.14(b)(8)(ii) |  |  |  |  |  |
| 285 | V.*~.1.c.* | Prevent contamination of water supplies | 270.14(b)(8)(iii) |  |  |  |  |  |
| 286 | V.*~.1.d.* | Mitigate effects of equipment failure | 270.14(b)(8)(iv) |  |  |  |  |  |
| 287 | V.*~.1.e.* | Prevent undue exposure of personnel to hazardous waste (HW) | 270.14(b)(8)(v) |  |  |  |  |  |
| 288 | V.*~.1.f.* | Prevent releases to atmosphere | 270.14(b)(8)(vi) |  |  |  |  |  |
| 289 | V.*~.2.* | Traffic pattern, estimated volume (number and types of vehicles) and control; Description of access road surfacing and load bearing capacity; Traffic control sign should be shown | 270.14(b)(10) |  |  |  |  |  |
| 290 | V.*~.3.* | Description of precautions to prevent accidental commingling of incompatible wastes in each of the units; Information should be provided to ensure that precautions are taken to avoid danger due to: | 264.17(b) |  |  |  |  |  |
| 291 | V.*~.3.a.* | Generation of extreme heat or pressure, fire, explosion, or violent reaction | 264.17(b)(1) |  |  |  |  |  |
| 292 | V.*~.3.b.* | Production of uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health | 264.17(b)(2) |  |  |  |  |  |
| 293 | V.*~.3.c.* | Production of uncontrolled flammable fumes or gases in sufficient quantities to pose risk of fire or explosion | 264.17(b)(3) |  |  |  |  |  |
| 294 | V.*~.3.d.* | Damaging the structural integrity of the device or facility containing the waste | 264.17(b)(4) |  |  |  |  |  |
| 295 | V.*~.3.e.* | Threatening human health or the environmental by any other means | 264.17(b)(5) |  |  |  |  |  |
| 296 | V.A. | **General Engineering Reports** |  | NA | NA | NA |  |  |
| 297 | V.A.1. | General Information: |  | NA | NA | NA |  |  |
| 298 | V.A.1.*a.* | Complete and submit Table V.A - Facility Waste Management Handling Units in hard copy and editable electronic format |  |  |  |  |  |  |
| 299 | V.A.1.*b.* | Submit an overall plan view at an appropriate scale to show the location of all HW management units on 8 1/2” x 14” sheets in hard copy and editable electronic format, including the following: | 305.45(a)(6) |  |  |  |  |  |
| 300 | V.A.1.*b.1.* | Each body of water in the state within map area | 305.45(a)(6)(A) |  |  |  |  |  |
| 301 | V.A.1.*b.2.* | General character of areas adjacent to facility | 305.45(a)(6)(B) |  |  |  |  |  |
| 302 | V.A.1.*b.3.* | Location of waste disposal activities conducted on tract but not included in application | 305.45(a)(6)(C) |  |  |  |  |  |
| 303 | V.A.1.*b.4.* | Ownership of tracts of land adjacent to facility and within reasonable distance from proposed or existing place of disposal or activity | 305.45(a)(6)(D) |  |  |  |  |  |
| 304 | V.A.1.*b.5.* | Other information that may be requested by the executive director | 305.45(a)(6)(E) |  |  |  |  |  |
| 305 | V.A.1.*c.* | Submit topographic map(s) showing the facility boundary and a distance of 1,000 ft. around it, having a scale of 1 inch equal to not more than 200 feet; The map must clearly show: | 270.14(b)(19) |  |  |  |  |  |
| 306 | V.A.1.*c.1.* | scale and date | 270.14(b)(19)(i) |  |  |  |  |  |
| 307 | V.A.1.*c.2.* | 100-yr flood plain area | 270.14(b)(19)(ii) |  |  |  |  |  |
| 308 | V.A.1.*c.3.* | surface waters (including intermittent streams and drainage ditches) | 270.14(b)(19)(iii) |  |  |  |  |  |
| 309 | V.A.1.*c.4.* | surrounding land uses | 270.14(b)(19)(iv) |  |  |  |  |  |
| 310 | V.A.1.*c.5.* | wind rose (may be submitted in a separate sheet) | 270.14(b)(19)(v) |  |  |  |  |  |
| 311 | V.A.1.*c.6.* | orientation of the map (north arrow) | 270.14(b)(19)(vi) |  |  |  |  |  |
| 312 | V.A.1.*c.7.* | legal boundaries of the HWM facility | 270.14(b)(19)(vii) |  |  |  |  |  |
| 313 | V.A.1.*c.8.* | access control or surveillance equipment | 270.14(b)(19)(viii) |  |  |  |  |  |
| 314 | V.A.1.*c.9.* | injection and withdraw wells both on-site and off-site | 270.14(b)(19)(ix) |  |  |  |  |  |
| 315 | V.A.1.*c.10.* | buildings | 270.14(b)(19)(x) |  |  |  |  |  |
| 316 | V.A.1.*c.11.* | treatment, storage or disposal operations | 270.14(b)(19)(x) |  |  |  |  |  |
| 317 | V.A.1.*c.12.* | recreation areas | 270.14(b)(19)(x) |  |  |  |  |  |
| 318 | V.A.1.*c.13.* | run-off control system | 270.14(b)(19)(x) |  |  |  |  |  |
| 319 | V.A.1.*c.14.* | access and internal roads | 270.14(b)(19)(x) |  |  |  |  |  |
| 320 | V.A.1.*c.15.* | storm, sanitary, and process sewerage system | 270.14(b)(19)(x) |  |  |  |  |  |
| 321 | V.A.1.*c.16.* | loading and unloading areas | 270.14(b)(19)(x) |  |  |  |  |  |
| 322 | V.A.1.*c.17.* | fire control facilities | 270.14(b)(19)(x) |  |  |  |  |  |
| 323 | V.A.1.*c.18.* | barriers for drainage or flood control | 270.14(b)(19)(xi) |  |  |  |  |  |
| 324 | V.A.1.*c.19.* | location and outline of operational units | 270.14(b)(19)(xii) |  |  |  |  |  |
| 325 | V.A.1.*c.20.* | Additional information requirements found on topographic maps: (If any of the following information has been submitted as part of the GW Monitoring Report in Section VI, provide a reference to it here) |  |  |  |  |  |  |
| 326 | V.A.1.*c.20.a.* | identification of the uppermost aquifer | 270.14(c)(2) |  |  |  |  |  |
| 327 | V.A.1.*c.20.b.* | delineation of the waste management units | 270.14(c)(3) |  |  |  |  |  |
| 328 | V.A.1.*c.20.c.* | property boundary | 270.14(c)(3) |  |  |  |  |  |
| 329 | V.A.1.*c.20.d.* | proposed “Point of Compliance” as defined under 264.95 | 270.14(c)(3) |  |  |  |  |  |
| 330 | V.A.1.*c.20.e.* | proposed location of GW monitoring wells as required under 264.97 | 270.14(c)(3) |  |  |  |  |  |
| 331 | V.A.1.c.*21.* | Information requirements for SWM units: (If any of the following information has been submitted as part of the Preliminary Review Checklist, provide a reference to it here) | 270.14(d)(1) |  |  |  |  |  |
| 332 | V.A.1.*c.21.a.* | location of the unit on a topographic map | 270.14(d)(1)(i) |  |  |  |  |  |
| 333 | V.A.1.*c.21.b.* | designation of type of unit | 270.14(d)(1)(ii) |  |  |  |  |  |
| 334 | V.A.1.*c.21.c.* | general dimensions and structural description | 270.14(d)(1)(iii) |  |  |  |  |  |
| 335 | V.A.1.*c.21.d.* | when unit was operated | 270.14(d)(1)(iv) |  |  |  |  |  |
| 336 | V.A.1.*c.21.e.* | specification of wastes that have been managed at the unit, to the extent available | 270.14(d)(1)(v) |  |  |  |  |  |
| 337 | V.A.2. | Provide design, construction, and operational information of features to mitigate unsuitable site characteristics where applicable (information covered under Sections I.E & II.F) as specified in the rules | 335.204(a)(1, 3-9); 335.204(b)(1, 4-5, 7-10, 12); 335.204(c)(1, 4-9, 11); 335.204(d)(1, 4-9, 11); 335.204(e)(1, 4-5, 8-11, 13) |  |  |  |  |  |
| 338 | V.A.3. | Construction Schedules |  | NA | NA | NA |  |  |
| 339 | V.A.3.a. | Provide schedule of compliance for retrofitting (if applicable) | 270.33(a)(2); 270.33(b) |  |  |  |  |  |
| 340 | V.A.3.b. | Provide construction schedule of commercial HW management units in the application for commercial HW management facilities, permit applications (new, renewal, or interim status applications, major amendments, or Class 3 modifications submitted after 11/23/94), adhering to the time limitation | 305.149 |  |  |  |  |  |
| 341 | V.A.4. | Provide detailed plans and specifications individually sealed, signed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm’s name and Registration Number; Note: For applications subject to post-closure only, submittal of as-built plans and specifications for the final cover system, individually for the unit and sealed, signed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm’s name and Registration Number would satisfy this requirement; Other as-built plans and specifications for the unit may be submitted upon request | 270.14; 305.50(a)(7) |  |  |  |  |  |
| 342 | V.B. | **Container Storage Areas** | 335.152(a)(7); 264 subpart I | NA | NA | NA |  |  |
| 343 | V.B.1. | Provide an Engineering Report with information specified in: 264.170-173, 264.175-264.177, and 270.15 | 264.170-173; 264.175-177; 270.15 |  |  |  |  |  |
| 344 | V.B.1.*a.* | Complete and submit Table V.B - Container Storage Areas in hard copy and editable electronic format |  |  |  |  |  |  |
| 345 | V.B.1.*b.* | Provide required additional information: |  |  |  |  |  |  |
| 346 | V.B.1.*b.1.* | Aisle space requirements |  |  |  |  |  |  |
| 347 | V.B.1.*b.2.* | Condition of containers |  |  |  |  |  |  |
| 348 | V.B.1.*b.3.* | Compatibility of waste with containers |  |  |  |  |  |  |
| 349 | V.B.1.*b.4.* | Container management practices |  |  |  |  |  |  |
| 350 | V.B.1.*b.5.* | Air Emission Standards (Part 264 Subpart AA, BB, and CC Requirements) |  |  |  |  |  |  |
| 351 | V.B.2. | Provide the design and operation for containment system including diagrams and engineering drawings (plans): | 270.15 |  |  |  |  |  |
| 352 | V.B.2.*~.1.* | A base which is free of cracks or gaps must underlay the containers; the base must be sloped, or the containment system must be designed and operated to drain and remove liquids resulting from leaks, spills or precipitation | 264.175(b)(1-2) |  |  |  |  |  |
| 353 | V.B.2.*~.2.* | Overflow prevention | 264.175(b)(5); 270.15(a)(5) |  |  |  |  |  |
| 354 | V.B.2.*~.3.* | Basic design parameters, dimensions, and materials of construction | 270.15(a)(1) |  |  |  |  |  |
| 355 | V.B.2.*~.4.* | Drainage design: | 270.15(a)(2) |  |  |  |  |  |
| 356 | V.B.2.a. | Containment system must have sufficient capacity to contain 10% volume of containers or volume of largest container (TCEQ recommends 25-yr, 24-hr rainfall event for extra capacity of uncovered areas) | 264.175(b)(3), 270.15(a)(3) |  |  |  |  |  |
| 357 | V.B.2.b. | Run-on prevention (TCEQ recommends 25-yr, 24-hr rainfall event to calculate the excess capacity) | 264.175(b)(4); 270.15(a)(4) |  |  |  |  |  |
| 358 | V.B.3. | Wastes Containing No Free Liquids | 264.175(c) | NA | NA | NA |  |  |
| 359 | V.B.3.*~.* | Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system, provided that: |  | NA | NA | NA |  |  |
| 360 | V.B.3.*~.1.* | Storage area is sloped or designed and operated to drain and remove liquid resulting from precipitation; Submit a demonstration | 264.175(c)(1) |  |  |  |  |  |
| 361 | V.B.3.*~.2.* | Containers are elevated or otherwise protected from contact with accumulated liquid the following info; Submit a demonstration that includes: | 264.175(c)(2) |  |  |  |  |  |
| 362 | V.B.3.a. | Test procedures and results that wastes do not contain free liquid | 270.15(b)(1) |  |  |  |  |  |
| 363 | V.B.3.b. | Design and operation of storage to remove and drain liquids | 270.15(b)(2) |  |  |  |  |  |
| 364 | V.B.3.*~.3.* | Provide the design and operation (264.175(b)) for containers holding Dioxin wastes (FO20, FO21, FO22, FO23, FO26 and FO27) that do not contain free liquids | 264.175(d) |  |  |  |  |  |
| 365 | V.B.4. | Provide engineering report drawings with buffer zone requirements if container storage area manages ignitable or reactive wastes | 264.17; 264.176 |  |  |  |  |  |
| 366 | V.B.5. | Provide information here about special requirements of incompatible wastes, or reference information provided in Section IV | 264.177 |  |  |  |  |  |
| 367 | V.B.6. | Management of nonhazardous waste in CSA: If facilities are managing nonhazardous wastes, the types, quantities, and other information on the nonhazardous waste may need to be included as part of CSA Engineering Report and Table V.B. if applicable |  |  |  |  |  |  |
| 368 | V.B.7. | Provide detailed plans and specifications individually sealed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm’s name and Registration Number | 270.14; 305.50(a)(7) |  |  |  |  |  |
| 369 | V.C. | **Tanks and Tank Systems** | 335.152(a)(8); 264 subpart J | NA | NA | NA |  |  |
| 370 | V.C.*~.* | Provide an Engineering Report with information specified in: 264.190-194, 264.196, 264.198-199, and 270.16. | 264.190-194; 264.196; 264.198-199; 270.16 |  |  |  |  |  |
| 371 | V.C.1. | Complete and submit Table V.C. - Tanks and Tank System in hard copy and editable electronic format |  |  |  |  |  |  |
| 372 | V.C.2. | If tank will manage ignitable or reactive waste, describe and provide drawings demonstrating the buffer zone requirements in the engineering report | 264.17; 264.198 |  |  |  |  |  |
| 373 | V.C.3. | If tank will manage incompatible waste, describe special requirements and procedures | 264.17; 264.199 |  |  |  |  |  |
| 374 | V.C.4. | Submit written assessments and certification and reviewed by a licensed PE for existing tank system(s) without adequate secondary containment | 264.191; 264.193; 270.11(d) |  |  |  |  |  |
| 375 | V.C.5. | Specify if tank has been derated or if the permitted capacity is different from the design capacity |  |  |  |  |  |  |
| 376 | V.C.*6.* | Provide in the report for Tanks and Tank Systems all applicable aspects listed below, with supporting drawings, calculations, and certifications provided as attachments: |  |  |  |  |  |  |
| 377 | V.C.*6.a.* | 40 CFR 264.193 Exemption from Secondary Containment Requirements: a) Based on management of No Free Liquids in Tanks within a building with an impermeable flooring; OR, b) Based on tanks systems and sumps that serve as secondary containment to collect or contain releases of hazardous materials | 264.190(a); 264.190(b) |  |  |  |  |  |
| 378 | V.C.*6.b.* | Address response to leaks, spills and/or the disposition of leaking or unfit for-use tank systems, including: | 264.196 |  |  |  |  |  |
| 379 | V.C.*6.b.1.* | Cessation of use; prevent flow or addition of wastes | 264.196(a) |  |  |  |  |  |
| 380 | V.C.*6.b.2.* | Removal of waste from tank system or secondary containment system | 264.196(b) |  |  |  |  |  |
| 381 | V.C.*6.b.3.* | Containment of visible releases to environment | 264.196(c) |  |  |  |  |  |
| 382 | V.C.*6.b.4.* | Notification, reports | 264.196(d) |  |  |  |  |  |
| 383 | V.C.*6.b.5.* | Notification of secondary containment repair | 264.196(e) |  |  |  |  |  |
| 384 | V.C.*6.b.6.* | Certification of major repairs | 264.196(f) |  |  |  |  |  |
| 385 | V.C.*6.c.* | Provide assessment of existing tank system, including: | 264.191 |  |  |  |  |  |
| 386 | V.C.*6.c.1.* | Assessment of existing system’s integrity certified by a licensed PE | 264.191(a) |  |  |  |  |  |
| 387 | V.C.*6.c.2.* | Design standards | 264.191(b)(1) |  |  |  |  |  |
| 388 | V.C.*6.c.3.* | Hazardous characteristics of wastes in tanks | 264.191(b)(2) |  |  |  |  |  |
| 389 | V.C.*6.c.4.* | Existing corrosion protection | 264.191(b)(3) |  |  |  |  |  |
| 390 | V.C.*6.c.5.* | Age of tank(s) | 264.191(b)(4) |  |  |  |  |  |
| 391 | V.C.*6.c.6.* | For non-enterable tanks - Leak test/integrity examination | 264.191(b)(5) |  |  |  |  |  |
| 392 | V.C.*6.d.* | Provide assessment of new tank systems or components, including: | 264.192 |  |  |  |  |  |
| 393 | V.C.*6.d.1.* | Assessment of new tank system’s integrity certified by a licensed PE | 264.192(a); 270.11(d); 270.16(a) |  |  |  |  |  |
| 394 | V.C.*6.d.2.* | Design standards | 264.192(a)(1) |  |  |  |  |  |
| 395 | V.C.*6.d.3.* | Hazardous characteristics of wastes | 264.192(a)(2) |  |  |  |  |  |
| 396 | V.C.*6.d.4.* | Existing corrosion protection | 264.192(a)(3)(i-ii) |  |  |  |  |  |
| 397 | V.C.*6.e.* | Provide tank system(s) plans and specifications, including: |  |  |  |  |  |  |
| 398 | V.C.*6.e.1.* | Dimensions and capacity | 270.16(b) |  |  |  |  |  |
| 399 | V.C.*6.e.2.* | Feed systems | 270.16(c) |  |  |  |  |  |
| 400 | V.C.*6.e.3.* | Piping, instrumentation, process flow | 270.16(d) |  |  |  |  |  |
| 401 | V.C.*6.e.4.* | External corrosion protection | 270.16(e) |  |  |  |  |  |
| 402 | V.C.*6.e.5.* | Description of tank system installation and testing plans and procedures | 270.16(f) |  |  |  |  |  |
| 403 | V.C.*6.e.6.* | Plans and description of the design, construction and operation of the secondary containment system for each tank system | 270.16(g) |  |  |  |  |  |
| 404 | V.C.*6.e.7.* | Description of overfill and spill control as required under 264.194(b): | 270.16(i) |  |  |  |  |  |
| 405 | V.C.*6.e.7.a.* | Spill prevention controls | 264.194(b)(1) |  |  |  |  |  |
| 406 | V.C.*6.e.7.b.* | Overfill prevention controls | 264.194(b)(2) |  |  |  |  |  |
| 407 | V.C.*6.e.7.c.* | Maintenance of sufficient freeboard for uncovered tanks if no other controls to prevent overfilling | 264.194(b)(3) |  |  |  |  |  |
| 408 | V.C.*6.e.8.* | Special requirements for ignitable or reactive wastes | 264.198; 270.16(j) |  |  |  |  |  |
| 409 | V.C.*6.e.9.* | Special requirements for incompatible wastes. | 264.199; 270.16(j) |  |  |  |  |  |
| 410 | V.C.*6.e.10.* | Information on air emission control equipment as required in 270.27 | 270.16(k) |  |  |  |  |  |
| 411 | V.C.*6.f.* | Secondary containment system: Should be capable of detecting and accumulating releases until collected material is removed | 264.193(b)(1); 264.193(b)(2) | NA | NA | NA |  |  |
| 412 | V.C.*6.f.1.* | Provide minimum requirements, including: | 264.193(c) |  |  |  |  |  |
| 413 | V.C.*6.f.1.a.* | Compatibility, strength | 264.193(c)(1) |  |  |  |  |  |
| 414 | V.C.*6.f.1.b.* | Foundation strength | 264.193(c)(2) |  |  |  |  |  |
| 415 | V.C.*6.f.1.c.* | Detect leak within 24 hours | 264.193(c)(3) |  |  |  |  |  |
| 416 | V.C.*6.f.1.d.* | Drain/remove liquid within 24 hours | 264.193(c)(4) |  |  |  |  |  |
| 417 | V.C.*6.f.2.* | Include one or more of the following devices for secondary containment: | 264.193(d) |  |  |  |  |  |
| 418 | V.C.*6.f.2.a.* | Liner external to the tank | 264.193(d)(1) |  |  |  |  |  |
| 419 | V.C.*6.f.2.b.* | Vault | 264.193(d)(2) |  |  |  |  |  |
| 420 | V.C.*6.f.2.c.* | Double-walled tank | 264.193(d)(3) |  |  |  |  |  |
| 421 | V.C.*6.f.2.d.* | Justification for equivalent device submitted | 264.193(d)(4) |  |  |  |  |  |
| 422 | V.C.*6.g.* | Provide documentation of containment requirements, including: | 264.193(e) |  |  |  |  |  |
| 423 | V.C.*6.g.1.* | Tanks using External Liners and/or Vault Systems must contain 100% of the capacity of the largest tank plus 25-yr, 24-hr infiltration or run-on | 264.193(e)(1)(i); 264.193(e)(2)(i); 264.193(e)(1)(ii); 264.193(e)(2)(ii) |  |  |  |  |  |
| 424 | V.C.*6.g.2.* | External liner must be free of cracks or gaps, and must be designed and installed to surround the tank | 264.193(e)(1)(iii); 264.193(e)(1)(iv) |  |  |  |  |  |
| 425 | V.C.*6.g.3.* | Vault must be constructed with chemical resistant water stops in all joints and provided with an impermeable interior coating, means to protect against formation of ignitable vapors, and an exterior moisture barrier or an alternate means to protect against moisture incursion | 264.193(e)(2)(iii); 264.193(e)(2)(iv); 264.193(e)(2)(v); 264.193(e)(2)(vi) |  |  |  |  |  |
| 426 | V.C.*6.h.1.* | A double-walled tank must completely envelope inner tank as an integral structure; | 264.193(e)(3)(i) |  |  |  |  |  |
| 427 | V.C.*6.h.2.* | Protected from corrosion of both the interior and exterior tank shells. | 264.193(e)(3)(ii) |  |  |  |  |  |
| 428 | V.C.*6.h.3.* | Provided with built-in continuous leak protection system | 264.193(e)(3)(iii) |  |  |  |  |  |
| 429 | V.C.*6.i.* | Secondary containment for ancillary equipment. | 264.193(f) |  |  |  |  |  |
| 430 | V.C.*6.j.1.* | Variance from secondary containment from the requirements of 264.193 & 264.193(g): | 270.16(h) |  |  |  |  |  |
| 431 | V.C.*6.j.2.* | Variance based on demonstration of equivalent protection of groundwater and surface. | 264.193(g)(1)(i-iv) |  |  |  |  |  |
| 432 | V.C.*6.j.3.* | Variance on demonstration if no substantial present or potential hazard. | 264.193(g)(2)(i-iv) |  |  |  |  |  |
| 433 | V.C.*7.* | Provide Inspection Requirements (may provide information either in the tank report with a complete Table III-D, or in Section III) and submit in hard copy and editable electronic format | 264.195 |  |  |  |  |  |
| 434 | V.C.*8.* | Provide detailed plans and specifications individually sealed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm’s name and Registration Number | 270.14(a); 305.50(a)(7) |  |  |  |  |  |
| 435 | V.D. | **Surface Impoundments (SI)** | 335.152(a)(9); 264 subpart K | NA | NA | NA |  |  |
| 436 | V.D.*~.* | Submit a surface impoundment report including at a minimum: | 270.17 |  |  |  |  |  |
| 437 | V.D.*~.a.* | Costs associated with above-grade construction and the potential adverse effects | 305.50(a)(5) |  |  |  |  |  |
| 438 | V.D.*~.b.* | For new SI located in recharge zone must include a hydrogeologic report prepared by a licensed professional geoscientist or PE along with the Registered Engineering Firm’s name and Registration Number | 305.50(a)(6) |  |  |  |  |  |
| 439 | V.D.*~.c.* | Construction quality assurance program. | 264.19; EPA Publications 530-SW-85-014 and EPA/600/R-93/182, as applicable |  |  |  |  |  |
| 440 | V.D.*~.d.* | Action leakage rate. | 264.222; 270.17(b)(5) |  |  |  |  |  |
| 441 | V.D.*~.e.* | Response action plan. | 264.223; 270.17(b)(5) |  |  |  |  |  |
| 442 | V.D.*~.f.* | Liner system exemption requests. | 335.168(b); 264.221(b) |  |  |  |  |  |
| 443 | V.D.*~.g.* | Monitoring and inspection during construction. | 264.226(a) |  |  |  |  |  |
| 444 | V.D.*~.h.* | Emergency repairs contingency plans. | 264.227 |  |  |  |  |  |
| 445 | V.D.1. | Complete and submit Table V.D.1. - Surface Impoundments in hard copy and editable electronic format | 270.17(a) |  |  |  |  |  |
| 446 | V.D.2. | If SI will manage ignitable or reactive wastes as indicated in Table V.D.1., include 264.17 & 264.229 requirements in the engineering report | 264.17(g); 264.229 |  |  |  |  |  |
| 447 | V.D.3. | If SI will manage incompatible wastes as indicated in Table V.D.1., include 264.17 and 264.230 requirements in the engineering report | 264.17(h); 264.230 |  |  |  |  |  |
| 448 | V.D.4. | If SI will manage FO20, FO21, FO22, FO23, FO26, & FO27 as indicated in Table V.D.1., include 264.231 requirement in the engineering report | 264.231 |  |  |  |  |  |
| 449 | V.D.5. | Describe the SI; include a plan view and cross-section |  |  |  |  |  |  |
| 450 | V.D.6. | Freeboard: address Overtopping prevention resulting from: | 335.168(g); 264.221(g); 270.17(b)(6) |  |  |  |  |  |
| 451 | V.D.6.*a.* | Overtopping prevention from 100-yr, 24-hr storm | 335.168(g) |  |  |  |  |  |
| 452 | V.D.6.*b.* | Overfilling | 335.168(g); 264.221(g) |  |  |  |  |  |
| 453 | V.D.6.*c.* | Wind | 335.168(g); 264.221(g) |  |  |  |  |  |
| 454 | V.D.6.*d.* | Wave action | 335.168(g); 264.221(g) |  |  |  |  |  |
| 455 | V.D.6.*e.* | Rainfall | 335.168(g); 264.221(g) |  |  |  |  |  |
| 456 | V.D.6.*f.* | Run-off/Run-on | 335.168(g); 264.221(g) |  |  |  |  |  |
| 457 | V.D.6.*g.* | Malfunctions of level controllers | 335.168(g); 264.221(g) |  |  |  |  |  |
| 458 | V.D.7.*a.* | Waste Flow: If SI has inflow, describe overtopping prevention and provide appropriate detailed drawings | 335.168(g); 264.221(g) |  |  |  |  |  |
| 459 | V.D.7.*b.* | If SI is of flow-through design, describe the flow of waste including hydraulic profile |  |  |  |  |  |  |
| 460 | V.D.8. | Provide dike construction engineering drawings, diagrams and plans, including: | 264.221(h); 335.168(h) |  |  |  |  |  |
| 461 | V.D.8.a. | Dike engineering certification, certified by a licensed PE | 264.226(c); 305.50(a)(7) |  |  |  |  |  |
| 462 | V.D.8.a.1. | Stress of pressure from wastes | 264.226(c)(1) |  |  |  |  |  |
| 463 | V.D.8.a.2. | Will not fail due to scouring or piping | 264.226(c)(2) |  |  |  |  |  |
| 464 | V.D.8.b. | Structural integrity certified by a licensed PE | 264.226(c); 270.17(d) |  |  |  |  |  |
| 465 | V.D.8.c. | Report on dike design should include: | 335.168(i) |  |  |  |  |  |
| 466 | V.D.8.c.1. | Slope stability analysis |  |  |  |  |  |  |
| 467 | V.D.8.c.2. | Hydrostatic and hydrodynamic |  |  |  |  |  |  |
| 468 | V.D.8.c.3. | Storm loading |  |  |  |  |  |  |
| 469 | V.D.8.c.4. | Rapid draw down |  |  |  |  |  |  |
| 470 | V.D.8.d. | Protective cover for earthen dikes (describe protective cover and installation and maintenance) |  |  |  |  |  |  |
| 471 | V.D.9. | Containment System | 335.168(i) |  |  |  |  |  |
| 472 | V.D.9.a. | Complete and submit Table V.D.6 - Surface Impoundment Liner System in hard copy and editable electronic format | 264.221 |  |  |  |  |  |
| 473 | V.D.9.b. | Include analysis for the following in the Engineering Report: |  |  |  |  |  |  |
| 474 | V.D.9.b.*~.a.* | For artificial liners: | 335.168(i); 264.221(a) |  |  |  |  |  |
| 475 | V.D.9.b.1. | Seaming method |  |  |  |  |  |  |
| 476 | V.D.9.b.2. | Surface preparation method |  |  |  |  |  |  |
| 477 | V.D.9.b.3. | Tensile strength |  |  |  |  |  |  |
| 478 | V.D.9.b.4. | Impact resistance |  |  |  |  |  |  |
| 479 | V.D.9.b.5. | Compatibility demonstration |  |  |  |  |  |  |
| 480 | V.D.9.b.6. | Foundation design (including settlement potential, bearing capacity and stability, and potential for bottom heave blow-out) for soil liners |  |  |  |  |  |  |
| 481 | V.D.9.b.*~.b.* | For Soil Liners: | 335.168(i) |  |  |  |  |  |
| 482 | V.D.9.b.7. | Waste migration |  |  |  |  |  |  |
| 483 | V.D.9.b.8. | Atterberg Limits, % passing a # 200 sieve, and permeability |  |  |  |  |  |  |
| 484 | V.D.9.b.9. | Moisture Content |  |  |  |  |  |  |
| 485 | V.D.9.b.10. | Standard Proctor Density & compaction data |  |  |  |  |  |  |
| 486 | V.D.9.b.*~.c.* | For Leachate Collection Systems: | 335.168(i); 264.221(c)(2) |  |  |  |  |  |
| 487 | V.D.9.b.11. | Pipe Material and Strength |  |  |  |  |  |  |
| 488 | V.D.9.b.12. | Pipe Network Spacing and Grading |  |  |  |  |  |  |
| 489 | V.D.9.b.13. | Collection Sump(s) Material and Strength |  |  |  |  |  |  |
| 490 | V.D.9.b.14. | Drainage Media Specifications and Performance |  |  |  |  |  |  |
| 491 | V.D.9.b.15. | Analyses showing that pipe and pipe perforation size will prevent clogging and allow free liquid access to the pipe |  |  |  |  |  |  |
| 492 | V.D.9.b.16. | Compatibility Demonstration | 264.221(c)(2)(iii) |  |  |  |  |  |
| 493 | V.D.9.b.17. | Capacity of System: | 264.221(c)(2)(iv-v) |  |  |  |  |  |
| 494 | V.D.9.b.17.a. | rate of leachate removal |  |  |  |  |  |  |
| 495 | V.D.9.b.17.b. | capacity of sumps |  |  |  |  |  |  |
| 496 | V.D.9.b.17.c. | thickness of mounding and maximum hydraulic head |  |  |  |  |  |  |
| 497 | V.D.9.c. | Specify installation date and expected life of liner system |  |  |  |  |  |  |
| 498 | V.D.9.d. | Provide tests or documentation for whether the liner is chemically resistant to waste and how this resistance was determined | 335.168(a)(1-2) |  |  |  |  |  |
| 499 | V.D.9.e. | Submit a QA/QC Plan for all components |  |  |  |  |  |  |
| 500 | V.D.9.f. | Submit Response Action Plan for exceedances of Action Leakage Rate | 264.223(a) |  |  |  |  |  |
| 501 | V.D.10. | For new and existing impoundment(s), lateral expansion(s) or replacements of existing units, you must meet minimum technological requirements (MTR) unless an appropriate waiver is granted by the Commission. MTR must address: | 335.168; 264.221 |  |  |  |  |  |
| 502 | V.D.10.*a.* | Liner system requirements (must install 2 or more liners): |  |  |  |  |  |  |
| 503 | V.D.10.*a.1.* | Constructed with sufficient strength and thickness | 335.168(a)(1); 264.221(a)(1) |  |  |  |  |  |
| 504 | V.D.10.*a.2.* | Placed upon foundation | 335.168(a)(2); 264.221(a)(2) |  |  |  |  |  |
| 505 | V.D.10.*a.3.* | Installed to cover surrounding earth likely to be in contact with waste or leachate | 335.168(a)(3); 264.221(a)(3) |  |  |  |  |  |
| 506 | V.D.10.*a.4.* | A top liner must be constructed with geomembrane to prevent migration of hazardous | 264.221(c)(1)(i)(A) [as referenced in 335.168(c)] |  |  |  |  |  |
| 507 | V.D.10.*a.5.* | A composite bottom liner consisting of at least 2 components constructed of at least 3 ft. or compacted soil | 264.221(c)(1)(i)(B) [as referenced in 335.168(c)] |  |  |  |  |  |
| 508 | V.D.10.*b.* | Leakage detection system must be designed constructed with at a minimum: | 264.221(c)(2) [as referenced in 335.168(c)] |  |  |  |  |  |
| 509 | V.D.10.*b.1.* | 1% or more bottom slope | 264.221(c)(2)(i) [as referenced in 335.168(c)] |  |  |  |  |  |
| 510 | V.D.10.*b.2.* | 1x 10-1cm/s hydraulic conductivity, 12 in. (30.5 cm) thickness, or synthetic drainage(geonet) with transmissivity of 3X10-4 m2sec or more | 264.221(c)(2)(ii) [as referenced in 335.168(c)] |  |  |  |  |  |
| 511 | V.D.10.*b.3.* | Chemical resistant to waste | 264.221(c)(2)(iii) [as referenced in 335.168(c)] |  |  |  |  |  |
| 512 | V.D.10.*b.4.* | Minimize clogging | 264.221(c)(2)(iv) [as referenced in 335.168(c)] |  |  |  |  |  |
| 513 | V.D.10.*b.5.* | Sumps and liquid removal methods | 264.221(c)(2)(v) [as referenced in 335.168(c)] |  |  |  |  |  |
| 514 | V.D.10.*c.* | Collect and remove pumpable liquids in the sumps | 264.221(c)(3) [as referenced in 335.168(c)] |  |  |  |  |  |
| 515 | V.D.10.*d.* | Liner system location relative to high water table | 264.221(c)(4) [as referenced in 335.168(c)] |  |  |  |  |  |
| 516 | V.D.11. | Run-on Diversion: Describe prevention of run-on to active portion from 100-yr storm | 264.221(g); 335.168 (g) |  |  |  |  |  |
| 517 | V.D.12. | If submitting alternate design and operating practices for a SI, provide demonstration that alternative design and operating practices, with location characteristics, will: | 264.221(d) [as referenced in 335.168(d)] |  |  |  |  |  |
| 518 | V.D.12.a. | Prevent migration into the groundwater or surface water at least as effectively as the standard system specified by 40 CFR 264.22(c) | 264.221(d)(1) [as referenced in 335.168(d)] |  |  |  |  |  |
| 519 | V.D.12.b. | Allow detection of leaks of hazardous constituents through the top liner at least as effectively as the system specified in 40 CFR 264.221(c) | 264.221(d)(2) [as referenced in 335.168(c)] |  |  |  |  |  |
| 520 | V.D.13. | If seeking an exemption from double liner requirements for monofills, provide detailed plans and specifications with descriptions demonstrating at least equivalent effectiveness of the planned unit compared to one with a double liner system | 335.168(e); 264.221(e) |  |  |  |  |  |
| 521 | V.D.*14.* | Provide detailed plans and specifications, individually sealed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm’s name and Registration Number | 305.50(a)(7) |  |  |  |  |  |
| 522 | V.E. | **Waste Piles (WP)** | 335.152(a)(10); 264 subpart L | NA | NA | NA |  |  |
| 523 | V.E.*~.* | Submit a waste pile engineering report, including at the minimum: | 270.18 |  |  |  |  |  |
| 524 | V.E.*~.a.* | Liner description (design, operation, installation, construction and leachate collection system). For new waste pile unit or lateral expansion of existing unit, must comply with 264.251 (c) | 335.170(a)(1-2); 264.251(a) |  |  |  |  |  |
| 525 | V.E.*~.b.* | Construction quality assurance program | 264.19; EPA Publications 530-SW-85-014 and 600-R-93-182 |  |  |  |  |  |
| 526 | V.E.*~.c.* | Waste piles that are under a structure and protected from precipitation are not subject to 264.251 so long as: | 264.250(c) [as referenced in 335.170(c)] |  |  |  |  |  |
| 527 | V.E.*~.c.1.* | Free liquids are not placed in the waste pile | 264.250(c)(1) [as referenced in 335.170(c)] |  |  |  |  |  |
| 528 | V.E.*~.c.2.* | Protected from precipitation run-on | 264.250(c)(2) [as referenced in 335.170(c)] |  |  |  |  |  |
| 529 | V.E.*~.c.3.* | Wind dispersal is controlled | 264.250(c)(3) [as referenced in 335.170(c)] |  |  |  |  |  |
| 530 | V.E.*~.c.4.* | Will not generate leachate | 264.250(c)(4) [as referenced in 335.170(c)] |  |  |  |  |  |
| 531 | V.E.*~.d.* | Calculation of action leakage rate | 264.252 |  |  |  |  |  |
| 532 | V.E.*~.e.* | Response action plan | 264.253 |  |  |  |  |  |
| 533 | V.E.*~.f.* | Monitoring and inspection during construction | 264.254(a) |  |  |  |  |  |
| 534 | V.E.1. | Complete and submit Table V.E.1 - Waste Piles in hard copy and editable electronic format | 270.18(a) |  |  |  |  |  |
| 535 | V.E.2. | If WP will manage ignitable or reactive wastes as indicated in Table V.E.1, include 264.17 & 264.256 requirements in the engineering report | 264.17; 264.256 |  |  |  |  |  |
| 536 | V.E.3. | If WP will manage incompatible wastes as indicated in Table V.E.1, include 264.17 & 264.257 requirements in the engineering report | 264.17; 264.257 |  |  |  |  |  |
| 537 | V.E.4. | If WP will manage FO20, FO21, FO22, FO23, FO26, FO27 as indicated in Table V.D.1, include 264.231 requirement in the engineering report | 264.259 |  |  |  |  |  |
| 538 | V.E.5. | Describe WP design and construction | 270.18(c) |  |  |  |  |  |
| 539 | V.E.6. | Containment System (applicable to new waste piles and new portions of existing waste piles): Provide containment system design and construction | 335.170; Tech. Guidance No. 6; EPA Publications 530-SW-85-014 and 600-R-93-182 |  |  |  |  |  |
| 540 | V.E.6.a. | Complete and submit liner description (Table V.E.3 - Waste Pile Liner System) in hard copy and editable electronic format |  |  |  |  |  |  |
| 541 | V.E.6.b. | Liner engineering report (design, installation, construction, and operation of the liner and leachate collection system.), include in the analyses: | 264.251 |  |  |  |  |  |
| 542 | V.E.6.b.*~.a.* | For Artificial Liners: |  |  |  |  |  |  |
| 543 | V.E.6.b.1. | Seaming method |  |  |  |  |  |  |
| 544 | V.E.6.b.2. | Surface preparation method |  |  |  |  |  |  |
| 545 | V.E.6.b.3. | Tensile strength |  |  |  |  |  |  |
| 546 | V.E.6.b.4. | Impact resistance |  |  |  |  |  |  |
| 547 | V.E.6.b.5. | Compatibility demonstration |  |  |  |  |  |  |
| 548 | V.E.6.b.6. | Foundation design (including settlement potential, bearing capacity and stability, and potential for bottom heave blow-out) |  |  |  |  |  |  |
| 549 | V.E.6.b.*~.b.* | For Soil liners: |  |  |  |  |  |  |
| 550 | V.E.6.b.7. | Waste migration analysis (based on head, porosity, and permeability) |  |  |  |  |  |  |
| 551 | V.E.6.b.8. | Atterberg limits, % passing a #200 sieve, and permeability |  |  |  |  |  |  |
| 552 | V.E.6.b.9. | Moisture content |  |  |  |  |  |  |
| 553 | V.E.6.b.10. | Standard proctor density, compaction data |  |  |  |  |  |  |
| 554 | V.E.6.b.*~.c.* | For leachate detection, collection, and removal system: 264.251 requirements are for any new and/or lateral expansion of waste pile unit | 264.251(a)(2); 264.251(c)(2) [as referenced in 335.170(d)] |  |  |  |  |  |
| 555 | V.E.6.b.11. | Capacity of system: rate of leachate removal; capacity of sumps; and thickness of mounding and maximum hydraulic head | 264.251(a)(2); 264.251(c)(3) |  |  |  |  |  |
| 556 | V.E.6.b.12. | Pipe material strength | 264.251(a)(2); 264.251(c)(3) |  |  |  |  |  |
| 557 | V.E.6.b.13. | Pipe network spacing and grading | 264.251(a)(2); 264.251(c)(3) |  |  |  |  |  |
| 558 | V.E.6.b.14. | Collection sump(s) material and strength | 264.251(a)(2); 264.251(c)(3) |  |  |  |  |  |
| 559 | V.E.6.b.15. | Drainage media specifications and performance | 264.251(a)(2); 264.251(c)(3) |  |  |  |  |  |
| 560 | V.E.6.b.16. | Analysis showing that pipe and perforation size will prevent clogging and allow free liquid access to the pipe | 335.170(a)(2)(B) |  |  |  |  |  |
| 561 | V.E.6.b.17. | Compatibility demonstration |  |  |  |  |  |  |
| 562 | V.E.6.c. | Installation date and expected life of liner system |  |  |  |  |  |  |
| 563 | V.E.6.d. | Tests or documentation that liner is chemically resistant to waste | 335.170(a)(2)(A)(i) |  |  |  |  |  |
| 564 | V.E.6.e. | QA/QC plan |  |  |  |  |  |  |
| 565 | V.E.6.f. | Submit Response Action Plan for exceedances of Action Leakage Rate | 264.253(a) |  |  |  |  |  |
| 566 | V.E.7. | Describe practices of wind dispersal system control | 335.170(j); 264.251(j) |  |  |  |  |  |
| 567 | V.E.8. | Describe measures of Run-on Diversion control: | 335.170(g); 264.251(g) |  |  |  |  |  |
| 568 | V.E.8.*a.* | System prevents flow onto active portion from peak discharge of at least a 100-yr, 24-hr storm | 335.170(g); 264.251(g) |  |  |  |  |  |
| 569 | V.E.8.*b.* | Include analyses of rates of flow, run-on volume and depth, and backwater calculations |  |  |  |  |  |  |
| 570 | V.E.8.*c.* | Collection and holding facilities managed expeditiously after storm | 335.170(i); 264.251(i) |  |  |  |  |  |
| 571 | V.E.9. | Describe measures of Run-off Control: | 335.170(h); 264.251(h) |  |  |  |  |  |
| 572 | V.E.9.*a.* | System collects and controls run-off volume resulting from 100-yr, 24-hr storm | 335.170(h); 264.251 (h) |  |  |  |  |  |
| 573 | V.E.9.*b.* | Collection and holding facilities managed expeditiously | 335.170(i); 264.251(i) |  |  |  |  |  |
| 574 | V.E.9.*c.* | Include run-off volume calculations |  |  |  |  |  |  |
| 575 | V.E.10. | Design operating procedures: Must describe residuals (i.e. leachate) and the management process and the equipment used | 335.170; 264.251; 264.254 |  |  |  |  |  |
| 576 | V.E.11. | Description and list of equipment used: Must describe procedures used to place the waste in or on the pile and ensure that the containment system is protected from plant growth | 264.251; 264.254; 305.45(a)(8)(C); 335.170(k) |  |  |  |  |  |
| 577 | V.E.12. | For an exemption from liner and leachate collection requirements, include: | 335.170(b); 264.251(b); 264.251(d) [new WP] |  |  |  |  |  |
| 578 | V.E.12.a. | Prevention of waste migrating into ground or surface water at least as effectively as liners, etc. |  |  |  |  |  |  |
| 579 | V.E.12.b. | Will allow detection of leaks through liner at least as effectively |  |  |  |  |  |  |
| 580 | V.E.13. | Demonstrate WP exemption from ground-water monitoring by meeting the following standards: | 264.250(c); 264.90(b) |  |  |  |  |  |
| 581 | V.E.13.a. | Waste pile location entirely above seasonal high water table |  |  |  |  |  |  |
| 582 | V.E.13.b. | Waste pile inside or under some sort of structure and: | 264.250(c) |  |  |  |  |  |
| 583 | V.E.13.b.1. | Contains no liquid waste | 264.250(c)(1); 264.90(b)(2)(ii) |  |  |  |  |  |
| 584 | V.E.13.b.2. | Protected from surface water run-on | 264.250(c)(2); 264.90(b)(2)(iii) |  |  |  |  |  |
| 585 | V.E.13.b.3. | Has wind dispersal control without wetting waste | 264.250(c)(3) |  |  |  |  |  |
| 586 | V.E.13.b.4. | Will not generate leachate | 264.250(c)(4) |  |  |  |  |  |
| 587 | V.E.13.c. | Leachate collection and removal system must be above the top liner | 264.90(b)(2) |  |  |  |  |  |
| 588 | V.E.13.d. | Liners must be of sufficient strength and thickness to prevent failure, cracking, etc. and: | 264.90(b)(2) |  |  |  |  |  |
| 589 | V.E.13.d.1.a. | Waste pile must be underlain by 2 liners and a leak detection system to prevent migration | 264.90(b)(2)(iv) and (v) |  |  |  |  |  |
| 590 | V.E.13.d.1.b. | Demonstration of low potential for migration to uppermost aquifer during life of waste pile including closure period | 264.90(b)(2)(vi) and (vii) |  |  |  |  |  |
| 591 | V.E.13.d.2.a. | Waste pile must be underlain by a liner that is designed, constructed and installed to prevent migration; and | 264.90(b)(2) |  |  |  |  |  |
| 592 | V.E.13.d.2.b. | Waste must be removed periodically to inspect liner for signs of deterioration, cracks, etc. | 335.170(k) |  |  |  |  |  |
| 593 | V.E.*14.* | Provide detailed plans and specifications individually sealed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm’s name and Registration Number | 305.50(a)(7) |  |  |  |  |  |
| 594 | V.F. | **Land Treatment Units (LTU)** | 335.152(a)(11); 264 subpart M | NA | NA | NA |  |  |
| 595 | V.F.*~.* | Engineering Report: Submit a land treatment unit report, including at a minimum: | 270.2 |  |  |  |  |  |
| 596 | V.F.*~.a.* | Unsuitable site characteristics (covered under Section II.A & B) | 335.204(c) |  |  |  |  |  |
| 597 | V.F.*~.b.* | For a new LTU to be located in recharge zone of a regional aquifer, submit a hydrogeologic report prepared by a licensed professional geoscientist or PE along with the Registered Engineering Firm’s name and Registration Number | 305.50(a)(6) |  |  |  |  |  |
| 598 | V.F.*~.c.* | Recordkeeping | 264.279 |  |  |  |  |  |
| 599 | V.F.1. | Complete and submit Tables V.F.1 - Land Treatment Units and V.F.2 - Land Treatment Unit Capacity in hard copy and editable electronic format |  |  |  |  |  |  |
| 600 | V.F.1.*~.* | For a new LTU, provide the horizontal and vertical dimensions approved by the Regional Administrator. The maximum depth of treatment zone is: | 264.271(c) |  |  |  |  |  |
| 601 | V.F.1.a. | No more than 1.5 m (5 ft.) from the surface | 264.271(c)(1) |  |  |  |  |  |
| 602 | V.F.1.b. | More than 1 m (3 ft.) above the seasonal high water table | 264.271(c)(2) |  |  |  |  |  |
| 603 | V.F.2. | If the LTU will manage incompatible or reactive wastes, as indicated in Table V.F.1, include the requirements of 264.17 & 264.281 in the engineering report | 264.281 |  |  |  |  |  |
| 604 | V.F.3. | If the LTU will manage incompatible or reactive wastes, as indicated in Table V.F.1, include the requirements of 264.17 & 264.282 in the engineering report | 264.282 |  |  |  |  |  |
| 605 | V.F.4. | If LTU will manage FO20, FO21, FO22, FO23, FO26, & FO27, as indicated in Table V.F.1, include the requirements of 264.283 in the engineering report | 264.283 |  |  |  |  |  |
| 606 | V.F.5. | Describe the LTU, including a plan view and cross-section |  |  |  |  |  |  |
| 607 | V.F.6. | Complete and submit Table V. F.3 - Land Treatment Principal Hazardous Constituents in hard copy and editable electronic format |  |  |  |  |  |  |
| 608 | V.F.7. | Describe measures of Run-on diversion control: | 335.171(3) |  |  |  |  |  |
| 609 | V.F.7.*a.* | System collects and controls run-off volume resulting from 100-yr, 24-hr storm | 335.171(3) |  |  |  |  |  |
| 610 | V.F.7.*b.* | Collection and holding facilities managed expeditiously after storm | 335.171(5) |  |  |  |  |  |
| 611 | V.F.8. | Describe measures of Run-off controls: | 335.171(4) |  |  |  |  |  |
| 612 | V.F.8.*a.* | System collects and controls run-off volume resulting from 100-yr, 24-hr storm | 335.171(4) |  |  |  |  |  |
| 613 | V.F.8.*b.* | Collection and holding facilities managed expeditiously after storm; and | 335.171(5) |  |  |  |  |  |
| 614 | V.F.8.*c.* | Run-off volume calculations should be included |  |  |  |  |  |  |
| 615 | V.F.9. | Describe practices of wind dispersal system controls | 335.171(6) |  |  |  |  |  |
| 616 | V.F.10. | Provide treatment demonstration, including: | 264.272 |  |  |  |  |  |
| 617 | V.F.10.*a.* | A description of plans to conduct treatment demonstration as requirement in 264.272 | 270.20(a) |  |  |  |  |  |
| 618 | V.F.10.*b.* | List of wastes | 270.20(a)(1) |  |  |  |  |  |
| 619 | V.F.10.*c.* | Characteristics of waste and presence of appendix VIII of 261 constituents | 264.272(c)(1)(i) |  |  |  |  |  |
| 620 | V.F.10.*d.* | Climate of the area | 264.272(c)(1)(ii) |  |  |  |  |  |
| 621 | V.F.10.*e.* | Topography of the area | 264.272(c)(1)(iii) |  |  |  |  |  |
| 622 | V.F.10.*f.* | Characteristics of the soil in the area | 264.272(c)(1)(iv) |  |  |  |  |  |
| 623 | V.F.10.*g.* | Data sources to be used to make the demonstration | 270.20(a)(2) |  |  |  |  |  |
| 624 | V.F.10.*h.* | Laboratory or field test that will be conducted, including: | 270.20(a)(3) |  |  |  |  |  |
| 625 | V.F.10.*h.1.* | Type of test | 270.20(a)(3)(i) |  |  |  |  |  |
| 626 | V.F.10.*h.2.* | Materials, methods, and analytical procedures | 270.20(a)(3)(ii) |  |  |  |  |  |
| 627 | V.F.10.*h.3.* | Expected time for completion | 270.20(a)(3)(iii) |  |  |  |  |  |
| 628 | V.F.10.*h.4.* | Volume and characteristics of the unit to be simulated, including treatment zone, climatic conditions, and operating practices | 270.20(a)(3)(iv) |  |  |  |  |  |
| 629 | V.F.10.*h.5.* | A description of land treatment program as required under 264.271 that includes: the list of wastes; design and operating procedures; waste application rates and methods; control of pH; microbial enhancement/chemical reactions; and moisture control | 270.20(b) |  |  |  |  |  |
| 630 | V.F.10.*i.* | Duration of the test | 264.272(c)(3)(iii) |  |  |  |  |  |
| 631 | V.F.10.*j.* | Conducted in a manner that protects health & environment | 264.272(c)(3) |  |  |  |  |  |
| 632 | V.F.10.*k.* | Operating practices that will be used at the LTU | 264.272(c)(1)(v) |  |  |  |  |  |
| 633 | V.F.11. | Provide unsaturated zone monitoring program addressing: | 264.278 |  |  |  |  |  |
| 634 | V.F.11.*a.* | Soil-pore liquid monitoring, which should include: | 264.278(a) |  |  |  |  |  |
| 635 | V.F.11.*a.1.* | Hazardous constituents, which require approval by the regional administrator | 264.278(a)(1) |  |  |  |  |  |
| 636 | V.F.11.*a.2.* | Justification of principle hazardous constituents, which require approval by the regional administrator | 264.278(a)(2) |  |  |  |  |  |
| 637 | V.F.11.*b.* | Sampling location | 264.278(b) |  |  |  |  |  |
| 638 | V.F.11.*c.* | Background values | 264.278(c) |  |  |  |  |  |
| 639 | V.F.11.*d.* | Sampling frequency for soil and soil-pore liquid monitoring | 264.278(d) |  |  |  |  |  |
| 640 | V.F.11.*e.* | Sampling and analysis procedures: | 264.278(e) |  |  |  |  |  |
| 641 | V.F.11.*e.1.* | Sample collection | 264.278(e)(1) |  |  |  |  |  |
| 642 | V.F.11.*e.2.* | Sample preservation and shipment | 264.278(e)(2) |  |  |  |  |  |
| 643 | V.F.11.*e.3.* | Analytical procedures | 264.278(e)(3) |  |  |  |  |  |
| 644 | V.F.11.*e.4.* | Chain of custody | 264.278(e)(4) |  |  |  |  |  |
| 645 | V.F.11.*f.* | Statistical methods | 264.278(f-g) |  |  |  |  |  |
| 646 | V.F.12. | Demonstrate conditions met for food chain crop: | 264.276 |  |  |  |  |  |
| 647 | V.F.12.*a.* | Crops for human consumption | 264.276(a)(1) |  |  |  |  |  |
| 648 | V.F.12.*b.* | Food chain crops demonstration | 264.276(a)(1) |  |  |  |  |  |
| 649 | V.F.12.*c.* | Demonstration basis | 264.276(a)(2) |  |  |  |  |  |
| 650 | V.F.12.*d.* | Test procedures | 264.276(a)(3-4) |  |  |  |  |  |
| 651 | V.F.12.*e.* | Cadmium bearing wastes | 264.276(b) |  |  |  |  |  |
| 652 | V.F.12.*f.* | Animal feed | 264.276(b)(2) |  |  |  |  |  |
| 653 | V.F.13. | Provide detailed plans and specifications individually sealed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm’s name and Registration Number | 305.50(a)(7) |  |  |  |  |  |
| 654 | V.G. | **Landfills** | 335.152(a)(12); 264 subpart N | NA | NA | NA |  |  |
| 655 | V.G.*~.* | Submit a Landfill Engineering Report, including at a minimum: | 305.50(a)(5); 270.21 |  |  |  |  |  |
| 656 | V.G.*~.a.* | For new landfill only: The costs associated with above-grade construction and potential adverse effect associated with above-grade construction | 305.50(a)(5) |  |  |  |  |  |
| 657 | V.G.*~.b.* | For a new landfill only: Located in recharge zone must include a hydrogeologic report prepared by a licensed professional geoscientist or PE along with the Registered Engineering Firm’s name and Registration Number | 305.50(a)(6) |  |  |  |  |  |
| 658 | V.G.*~.c.* | Test fill | 264.19(c)(2) |  |  |  |  |  |
| 659 | V.G.*~.d.* | Calculation of action leakage rate | 264.302 |  |  |  |  |  |
| 660 | V.G.*~.e.* | Monitoring and inspection during construction or installation | 264.303(a) |  |  |  |  |  |
| 661 | V.G.*~.f.* | Response action plan | 264.304(a) |  |  |  |  |  |
| 662 | V.G.*~.g.* | Surveying and recordkeeping | 264.309 |  |  |  |  |  |
| 663 | V.G.1. | Complete and submit Table V.G.1. - Landfills in hard copy and editable electronic format |  |  |  |  |  |  |
| 664 | V.G.2. | If a landfill will manage ignitable or reactive wastes, as indicated in Table V.G.1, include the requirements of 264.17 & 264.312 in the engineering report | 264.312 |  |  |  |  |  |
| 665 | V.G.3. | If a landfill will manage incompatible wastes, as indicated in Table V.G.1, include the requirements of 264.17 and 264.313 in the engineering report | 264.313 |  |  |  |  |  |
| 666 | V.G.4. | If a landfill will manage FO20, FO21, FO22, FO23, FO26, & FO27, as indicated in Table V.F.1, include the requirements of 264.317 in the engineering report | 264.317 |  |  |  |  |  |
| 667 | V.G.5. | Describe the landfill, including a plan view and cross-section |  |  |  |  |  |  |
| 668 | V.G.6. | Describe containment system: | TCEQ Tech Guideline #6; EPA Publications 530-SW-85-014, 625/4-89-022, and SW-869 |  |  |  |  |  |
| 669 | V.G.6.a. | Complete and submit Tables V.G.3 - Landfill Liner System and V.G.4 - Landfill Leachate Collection System in hard copy and editable electronic format |  |  |  |  |  |  |
| 670 | V.G.6.b. | Describe the liners and leachate collection system: |  |  |  |  |  |  |
| 671 | V.G.6.b.*~.a.* | Analysis for artificial liners: | EPA Publications 530-SW-85-014, 625/4-89-022, and SW-869 |  |  |  |  |  |
| 672 | V.G.6.b.1. | Seaming method |  |  |  |  |  |  |
| 673 | V.G.6.b.2. | Surface preparation method |  |  |  |  |  |  |
| 674 | V.G.6.b.3. | Tensile strength |  |  |  |  |  |  |
| 675 | V.G.6.b.4. | Impact resistance |  |  |  |  |  |  |
| 676 | V.G.6.b.5. | Compatibility demonstration |  |  |  |  |  |  |
| 677 | V.G.6.b.6. | Foundation design |  |  |  |  |  |  |
| 678 | V.G.6.b.*~.b.* | Analysis for soil liners: | EPA Publications 530-SW-85-014, 625/4-89-022, and SW-869 |  |  |  |  |  |
| 679 | V.G.6.b.7. | Waste migration analysis |  |  |  |  |  |  |
| 680 | V.G.6.b.8. | Atterberg limits, % passing a # 200 sieve, permeability |  |  |  |  |  |  |
| 681 | V.G.6.b.9. | Moisture content |  |  |  |  |  |  |
| 682 | V.G.6.b.10. | Standard proctor density, compaction data |  |  |  |  |  |  |
| 683 | V.G.6.b.*~.c.* | Analysis for leachate collection system: |  |  |  |  |  |  |
| 684 | V.G.6.b.11. | Capacity of the system - Address: |  |  |  |  |  |  |
| 685 | V.G.6.b.11.a. | Rate of leachate removal |  |  |  |  |  |  |
| 686 | V.G.6.b.11.b. | Capacity of sumps |  |  |  |  |  |  |
| 687 | V.G.6.b.11.c. | Thickness of mounding and maximum hydraulic |  |  |  |  |  |  |
| 688 | V.G.6.b.12. | Pipe material strength |  |  |  |  |  |  |
| 689 | V.G.6.b.13. | Pipe network spacing and grading |  |  |  |  |  |  |
| 690 | V.G.6.b.14. | Collection sump material and strength |  |  |  |  |  |  |
| 691 | V.G.6.b.15. | Drainage media specifications and performance |  |  |  |  |  |  |
| 692 | V.G.6.b.16. | Analysis showing that pipe and pipe perforation size will prevent clogging and allow free liquid access to the pipe |  |  |  |  |  |  |
| 693 | V.G.6.b.17. | Compatibility demonstration |  |  |  |  |  |  |
| 694 | V.G.6.c. | If liner system and leachate collection components are chemically resistant to wastes, submit tests and documentation |  |  |  |  |  |  |
| 695 | V.G.6.d. | Provide QA/QC plan |  |  |  |  |  |  |
| 696 | V.G.6.e. | Whether the leachate collection components are chemically resistant to the waste and how this resistance was determined. Attach any tests or documentation to the engineering report |  |  |  |  |  |  |
| 697 | V.G.6.f. | Provide a Response Action Plan that proposes actions to be taken in the case of exceedance of the landfill Action Leakage Rate. At a minimum, the Response Action Plan must include the requirements of 40 CFR 264.304 | 264.304 |  |  |  |  |  |
| 698 | V.G.7. | Provide for Dikes: | EPA Publications 625/4-89-022 and SW-869 |  |  |  |  |  |
| 699 | V.G.7.a. | Slope stability analysis |  |  |  |  |  |  |
| 700 | V.G.7.b. | Hydrostatic and hydrodynamic analyses |  |  |  |  |  |  |
| 701 | V.G.7.c. | Ability to withstand scouring from leaky liner, etc. |  |  |  |  |  |  |
| 702 | V.G.8. | For newly regulated units, lateral expansions or replacement of existing units must meet minimum technological requirements (MTR). MTR must address: | 335.173; 264.301 |  |  |  |  |  |
| 703 | V.G.8.*a.* | Top liner migration prevention | 264.301(c)(1)(i)(A) |  |  |  |  |  |
| 704 | V.G.8.*b.* | Composite bottom liner migration prevention | 264.301(c)(1)(i)(B) |  |  |  |  |  |
| 705 | V.G.8.*c.* | Leachate collection and removal systems above and between liners | 264.301(c)(2) |  |  |  |  |  |
| 706 | V.G.8.*d.* | Leachate collection and removal systems between liners and immediately above the bottom composite liner | 264.301(c)(3) |  |  |  |  |  |
| 707 | V.G.8.*e.* | Removal of pumpable liquids | 264.301(c)(4) |  |  |  |  |  |
| 708 | V.G.8.*f.* | Liner system location relative to high water table | 264.301(c)(5) |  |  |  |  |  |
| 709 | V.G.8.*g.* | Design and operating requirements for new and existing liner systems: | 335.173; 264.301 |  |  |  |  |  |
| 710 | V.G.8.*g.1.* | Liner must be constructed of materials that prevent wastes passing into the liner during the active life of the facility | 335.173(a)(1) |  |  |  |  |  |
| 711 | V.G.8.*g.2.* | Materials have appropriate chemical properties and sufficient strength and thickness to prevent failure due to: | 335.173(a)(1)(A) |  |  |  |  |  |
| 712 | V.G.8.*g.2.a.* | Pressure gradients (including static head and external hydrogeologic forces) | 335.173(a)(1)(A) |  |  |  |  |  |
| 713 | V.G.8.*g.2.b.* | Physical contact with waste or leachate | 335.173(a)(1)(A) |  |  |  |  |  |
| 714 | V.G.8.*g.2.c.* | Climate conditions | 335.173(a)(1)(A) |  |  |  |  |  |
| 715 | V.G.8.*g.2.d.* | Stress of installation and daily operation | 335.173(a)(1)(A) |  |  |  |  |  |
| 716 | V.G.8.*g.3.a.* | Liner system foundation | 335.173(a)(1)(B) |  |  |  |  |  |
| 717 | V.G.8.*g.3.b.* | Liner system coverage | 335.173(a)(1)(C) |  |  |  |  |  |
| 718 | V.G.8.*g.4.a.* | Bottom liner migration prevention | 335.173(a)(2)(A) |  |  |  |  |  |
| 719 | V.G.8.*g.4.b.* | Minimize rate of migration of wastes out of landfill | 335.173(a)(2)(B) |  |  |  |  |  |
| 720 | V.G.8.*g.5.a.* | Leachate collection and removal systems above top liner | 335.173(a)(3) |  |  |  |  |  |
| 721 | V.G.8.*g.5.b.* | Conditions that ensure leachate depth will not exceed 30 cm (1ft.) | 335.173(a)(3); 264.301(c)(3)(ii) |  |  |  |  |  |
| 722 | V.G.8.*g.5.c.* | Construction of materials that are chemically resistant to waste and leachate | 335.173(a)(3)(A)(i) |  |  |  |  |  |
| 723 | V.G.8.*g.5.d.* | Materials strength and thickness | 335.173(a)(3)(A)(ii) |  |  |  |  |  |
| 724 | V.G.8.*g.5.e.* | Design and operation to prevent clogging | 335.173(a)(3)(B) |  |  |  |  |  |
| 725 | V.G.8.*g.6.* | Liner system exemption requests; | 335.173(b) |  |  |  |  |  |
| 726 | V.G.8.*g.7.* | Exemption based on existing portion | 335.173(d) |  |  |  |  |  |
| 727 | V.G.8.*g.8.* | Exemption for monofills | 335.173(e); 264.301(e) |  |  |  |  |  |
| 728 | V.G.9. | Provide Site Development Plan, including: |  |  |  |  |  |  |
| 729 | V.G.9.*a.* | Method and rate of waste deposition |  |  |  |  |  |  |
| 730 | V.G.9.*b.* | Waste segregation |  |  |  |  |  |  |
| 731 | V.G.9.*c.* | Average and maximum lift size |  |  |  |  |  |  |
| 732 | V.G.9.*d.* | Average and maximum cell and trench size |  |  |  |  |  |  |
| 733 | V.G.10. | Describe Run-on controls, including: |  |  |  |  |  |  |
| 734 | V.G.10.*~.1.* | Design, construction, operation and maintenance of run-on control system | 335.173(g); 264.301(g) |  |  |  |  |  |
| 735 | V.G.10.*~.2.* | Collection and holding facilities managed expeditiously |  |  |  |  |  |  |
| 736 | V.G.10.a. | Run-on volume and depth calculations resulting from 100-yr, 24-hr storm | 335.173(g) |  |  |  |  |  |
| 737 | V.G.10.b. | Back-water calculations (for ditches on plant property) |  |  |  |  |  |  |
| 738 | V.G.11. | Describe Run-off Controls, including: |  |  |  |  |  |  |
| 739 | V.G.11.*a.* | Design, construction, operation and maintenance of run-off control system | 335.173(h); 264.301(h) |  |  |  |  |  |
| 740 | V.G.11.*b.* | System collects and controls run-off volume resulting from 100-yr, 24-hr storm | 335.173(h) |  |  |  |  |  |
| 741 | V.G.12. | Describe practices of wind dispersal system controls | 335.173(j); 264.301(j) |  |  |  |  |  |
| 742 | V.G.13. | Liquid wastes: Provide supporting documentation showing that an appropriate stabilization procedures, etc. were used for the following: | 264.314 |  |  |  |  |  |
| 743 | V.G.13.*a.* | Bulk or containerized free liquids | 335.175(a-b); 264.314(a-b) |  |  |  |  |  |
| 744 | V.G.13.*b.* | Placement of any liquid waste which is not a hazardous waste in a landfill | 335.175(c) |  |  |  |  |  |
| 745 | V.G.13.*c.* | Containers holding free liquids: | 335.173(d) |  |  |  |  |  |
| 746 | V.G.13.*c.1.* | Restriction to small containers (e.g. ampule) | 335.173(d)(1) |  |  |  |  |  |
| 747 | V.G.13.*c.2.* | Non-storage containers(e.g. battery or capacitor) | 335.175(d)(2) |  |  |  |  |  |
| 748 | V.G.13.*c.3.* | Labpack containers | 335.175(d)(3) |  |  |  |  |  |
| 749 | V.G.14. | If providing an alternate design or operating practices, demonstrate the following: | 335.175(d); 264.301(d) |  |  |  |  |  |
| 750 | V.G.14.a. | Will prevent migration of hazardous constituents into the groundwater |  |  |  |  |  |  |
| 751 | V.G.14.b. | Will allow detection of leaks of hazardous constituents through the top liner at least as effectively |  |  |  |  |  |  |
| 752 | V.G.15. | If seeking an exemption from double-liner requirements for monofills, provide the following: | 264.301(e) |  |  |  |  |  |
| 753 | V.G.15.*a.* | Alternative design and operation | 335.173(b) |  |  |  |  |  |
| 754 | V.G.15.*b.* | Nature and quantity of wastes | 335.173(b)(1) |  |  |  |  |  |
| 755 | V.G.15.*c.* | Proposed alternate design and operation | 335.173(b)(2) |  |  |  |  |  |
| 756 | V.G.15.*d.* | Hydrogeologic setting , including liners and soils | 335.173(b)(3) |  |  |  |  |  |
| 757 | V.G.15.*e.* | All other factors which would influence the quality and mobility of leachate produced |  |  |  |  |  |  |
| 758 | V.G.16. | Above-grade benefits: Provide benefits, costs, adverse effects associated with above-grade construction | 361.108 (TX Health & Safety Code) |  |  |  |  |  |
| 759 | V.G.*17.* | Provide detailed plans and specifications individually sealed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm’s name and Registration Number | 305.50(a)(7) |  |  |  |  |  |
| 760 | V.H. | **Incinerators** | 305 Subchapter I; 335.152(a)(13); 264 subpart O | NA | NA | NA |  |  |
| 761 | V.H.1. | Complete and submit Table V.H.1 - Incinerators in hard copy and editable electronic format | 270.19; 270.62 |  |  |  |  |  |
| 762 | V.H.2. | Complete and submit Table V.H.2 - Incinerator Permit Conditions, Monitoring, and Automatic Waste Feed Cutoff Systems in hard copy and editable electronic format |  |  |  |  |  |  |
| 763 | V.H.3. | Complete and submit Table V.H.3 - Maximum Constituent Feed Rates in hard copy and editable electronic format |  |  |  |  |  |  |
| 764 | V.H.4. | Complete and submit Table V.H.4 - Maximum Allowable Emission Rates in hard copy and editable electronic format |  |  |  |  |  |  |
| 765 | V.H.5. | Complete and submit Table V.H.5 - Incinerator Permit Conditions, Monitoring, and Automatic Waste Feed Cutoff Systems - Short-Term Operation during shakedown period, trial burn period and period after completion of initial trial burn |  |  |  |  |  |  |
| 766 | V.H.6. | Describe precautions taken for management of reactive and/or incompatible wastes | 264.17 |  |  |  |  |  |
| 767 | V.H.7. | If incinerator manages FO20, FO21, FO22, FO23, FO26, or FO27, the DRE requirement is 99.9999% | 264.343(a)(2) | NA | NA | NA |  |  |
| 768 | V.H.8. | For trial burn, one or more of Appendix VIII organic compounds present in waste must be designated as POHC. Selection based on concentration in waste feed and degree of difficulty to incinerate. Complete and submit Table V.H.8 - Principal Organic Hazardous Constituents in hard copy and editable electronic format |  |  |  |  |  |  |
| 769 | V.H.9. | Submit QA/QC Plan for sampling, analysis and monitoring for trail burn |  |  |  |  |  |  |
| 770 | V.H.10. | Integration with MACT Standards Minimization of emissions from startup, shutdown, and malfunction events for permitted units, identify the following if applicable: | 305.175-176; 270.235 |  |  |  |  |  |
| 771 | V.H.10.*a.* | Retain relevant permit conditions | 270.235(a)(i) |  |  |  |  |  |
| 772 | V.H.10.*b.* | Revise relevant permit conditions | 270.235(a)(ii) |  |  |  |  |  |
| 773 | V.H.10.*c.* | Remove permit conditions with approved plan documentation | 270.235(a)(iii) |  |  |  |  |  |
| 774 | V.H.*11.* | INCINERATOR TRIAL BURN PLAN: | No Letter = Common D=DILO (Data In Lieu of Testing) | NA | NA | NA |  |  |
| 775 | V.H.*11.a.* | TRIAL BURN PLAN REQUIREMENTS: Provide information describing the plans for the test that demonstrates the following requirements: | 305.172/305.175 (New); 270.62/305.174/305.175 (Existing) | NA | NA | NA |  |  |
| 776 | V.H.*11.a.1.* | Incinerator engineering description: | 305.172(2)(B); 270.62(b)(2)(ii); D:270.19(c)(2) |  |  |  |  |  |
| 777 | V.H.*11.a.1.a.* | Manufacturer’s name and model number of the incinerator | 305.172(2)(B)(i); 270.62(b)(2)(ii)(A); D:270.19(c)(2)(i) |  |  |  |  |  |
| 778 | V.H.*11.a.1.b.* | Type of incinerator | 305.172(2)(B)(ii); 270.62(b)(2)(ii)(B); D:270.19(c)(2)(ii) |  |  |  |  |  |
| 779 | V.H.*11.a.1.c.* | Linear dimensions including cross sectional area of combustion chamber | 305.172(2)(B)(iii); 270.62(b)(2)(ii)(C); D:270.19(c)(2)(iii) |  |  |  |  |  |
| 780 | V.H.*11.a.1.d.* | Description of auxiliary fuel supply, type/feed, max and typical rate, and heat value | 305.172(2)(B)(iv); 270.62(b)(2)(ii)(D); D:270.19(c)(2)(iv) |  |  |  |  |  |
| 781 | V.H.*11.a.1.e.* | Capacity of prime combustion air mover(s) | 305.172(2)(B)(v); 270.62(b)(2)(ii)(E); D:270.19(c)(2)(v) |  |  |  |  |  |
| 782 | V.H.*11.a.1.f.* | Description of automatic waste feed cutoff system, cut off values, instrumentation with instrument range and accuracy | 305.172(2)(B)(vi); 270.62(b)(2)(ii)(F); D:270.19(c)(2)(vi) |  |  |  |  |  |
| 783 | V.H.*11.a.1.g.* | Stack gas monitoring and pollution control equipment monitoring system with instrument range and accuracy | 305.172(2)(B)(vii); 270.62(b)(2)(ii)(G); D:270.19(c)(2)(vii) |  |  |  |  |  |
| 784 | V.H.*11.a.1.h.* | Nozzle, injector. and burner design | 305.172(2)(B)(viii); 270.62(b)(2)(ii)(H); D:270.19(c)(2)(viii) |  |  |  |  |  |
| 785 | V.H.*11.a.1.i.* | Construction material | 305.172(2)(B)(ix); 270.62(b)(2)(ii)(I); D:270.19(c)(2)(ix) |  |  |  |  |  |
| 786 | V.H.*11.a.1.j.* | Location and description of temperature, pressure, and flow indicating and control devices with instrument range and accuracy | 305.172(2)(B)(x); 270.62(b)(2)(ii)(J); D:270.19(c)(2)(x) |  |  |  |  |  |
| 787 | V.H.*11.a.1.k.* | Emergency shutdown procedures | 305.172(2)(B)(vi) and (2)(G); 270.62(b)(2)(vii) |  |  |  |  |  |
| 788 | V.H.*11.a.2.* | Description of air pollution control equipment operation and control | 305.172(2)(F); 270.62(b)(7)(vi) |  |  |  |  |  |
| 789 | V.H.*11.a.3.* | Identification of fugitive emission source, location, emission rate, and their means of control 40 CFR 264.345(d) | 305.172(2)(H) and 305.172(7)(G); 270.62(b)(2)(viii) and 270.62(b)(7)(vii); D:270.19(c)(7) |  |  |  |  |  |
| 790 | V.H.*11.a.4.* | Analysis of each waste or mixture of wastes: | 305.172(2)(A); 270.62(b)(2)(i); D:270.19(c)(1) |  |  |  |  |  |
| 791 | V.H.*11.a.4.a.* | Waste heat value | 305.172(2)(A)(i); 270.62(b)(2)(i)(A); 270.19(c)(1)(i) |  |  |  |  |  |
| 792 | V.H.*11.a.4.b.* | Levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, all metals routinely detected by EPA Method used, total chlorine/chloride, and ash | 305.172(2)(H); 270.62(b)(2)(viii); D:270.19(c)(7) |  |  |  |  |  |
| 793 | V.H.*11.a.4.c.* | Viscosity (if applicable) or description of physical form of waste feed stream | 305.172(2)(A)(ii); 270.62(b)(2)(i)(B); D:270.19(c)(1)(ii) |  |  |  |  |  |
| 794 | V.H.*11.a.4.d.* | Identification of any hazardous constituents listed in Part261 appendix VIII | 305.172(2)(A)(iii); 270.62(b)(2)(i)(C); D:270.19(c)(1)(iii) |  |  |  |  |  |
| 795 | V.H.*11.a.4.e.* | Approximate quantification of all hazardous constituents | 305.172(2)(A)(iv); 270.62(b)(2)(i)(D); D:270.19(c)(1)(iv) |  |  |  |  |  |
| 796 | V.H.*11.a.4.f.* | POHC selection | 305.172(4); 270.62(b)(4); D:270.19(c)(1)(v) |  |  |  |  |  |
| 797 | V.H.*11.a.5.* | Sampling analysis, and monitoring procedures, locations, equipment description, frequency, and procedures | 305.172(2)C); 270.62(b)(2)(iii); D:270.19(c)(2)(x) |  |  |  |  |  |
| 798 | V.H.*11.a.6.* | Detailed trial burn schedule including dates, duration, quantity of waste to be burned, and other factors | 305.172(2)(D); 270.62(b)(2)(iv) |  |  |  |  |  |
| 799 | V.H.*11.a.7.* | Detailed test protocol table with column for each test condition containing detailed test conditions for each waste stream, operating temperatures, each waste feed rate, combustion gas velocity, use of auxiliary fuel, and other relevant parameter. Historical justification of Trial Burn test conditions | 305.172(2)(E); 270.62(b)(2)(v) |  |  |  |  |  |
| 800 | V.H.*11.a.8.* | Other Information including, but not limited to, Engineering Drawings including incinerator, air pollution control devices, sampling protocols and access, PFD, PI&D, elevations and plan views, piping, containment, vessels, specifications, and calculations appropriately sealed | 305.172(2)(H); 270.62(b)(2)(viii); D:270.19(c)(7) |  |  |  |  |  |
| 801 | V.H.*11.b.* | TYPICAL AND MAXIMUM FLOW RATE OF EACH WASTE STREAM | 305.172(2)(H); 270.62(b)(2)(viii); D:270.19(c)(7) |  |  |  |  |  |
| 802 | V.H.*11.c.* | DATA OBJECTIVES FOR TRIAL BURN: |  | NA | NA | NA |  |  |
| 803 | V.H.*11.c.1.* | Quantitative analysis of POHCs in waste feed to incinerator | 305.172(7)(A); 270.62(b)(7)(i); D:270.19(c)(8) |  |  |  |  |  |
| 804 | V.H.*11.c.2.* | Quantitative analysis of metals in feed streams, hazardous waste, and other fuels | 270.66(f)(1) (by procedure); D:270.19(c)(7) |  |  |  |  |  |
| 805 | V.H.*11.c.3.* | Quantitative analysis of exhaust gas for POHCs, O2, & HCl, metals, and chlorine | 305.172(7)(B); 270.62(b)(7)(ii); 270.66(f)(4) (by procedure); D:270.19(c)(5) |  |  |  |  |  |
| 806 | V.H.*11.c.4.* | Quantitative analysis of scrubber water (if used), ash residue, and other residues for fate of POHCs | 305.172(7)(C); 270.62(b)(7)(iii) |  |  |  |  |  |
| 807 | V.H.*11.c.5.* | Computation of DRE per 40 CFR 264.343(b) | 305.172(7)(D); 270.62(b)(7)(iv); D:270.19(c)(5) |  |  |  |  |  |
| 808 | V.H.*11.c.6.* | Computation of HCl removal efficiency per 40 CFR 264.343(b) | 305.172(7)(E); 270.62(b)(7)(v); D:270.19(c)(5) and (6)(vii) |  |  |  |  |  |
| 809 | V.H.*11.c.7.* | Computation of PM per 40 CFR 264.343('c) | 305.172(7)(F); 270.62(b)(7)(vi); D:270.19(c)(5) |  |  |  |  |  |
| 810 | V.H.*11.c.8.* | Measurement of average, maximum, and minimum temperatures and combustion gas velocity | 305.172(7)(H); 270.62(b)(7)(viii); D:270.19(c)(6)(v) and (c)(5) |  |  |  |  |  |
| 811 | V.H.*11.c.9.* | Continuous measurements of CO in exhaust gas | 305.172(7)(I); 270.62(b)(7)(ix); D:270.19(c)(5)(ii) |  |  |  |  |  |
| 812 | V.H.*11.c.10.* | Other Information | 305.172(7)(J); 270.62(b)(7)(x); D:270.19(c)(7) |  |  |  |  |  |
| 813 | V.H.*11.d.* | PERFORMANCE STANDARDS: |  | NA | NA | NA |  |  |
| 814 | V.H.*11.d.1.* | Incinerator burning HW must achieve a DRE of 99.99% for each POHC | 264.343(a)(1) |  |  |  |  |  |
| 815 | V.H.*11.d.2.* | An incinerator burning HW FO20, FO21, FO22, FO23, FO26, or FO27 must achieve a DRE of 99.9999% for each POHC | 264.343(a)(2) |  |  |  |  |  |
| 816 | V.H.*11.d.3.* | An incinerator burning HW and producing stack emissions of more than 1.8 kg/hr. (4lbs/hr.) of HCl must control HCl emissions if 1.8 kg/hr. or 1% of HCl in the stack gas prior to entering any pollution control equipment | 264.343(b) |  |  |  |  |  |
| 817 | V.H.*11.d.4.* | An incinerator burning HW must not emit particulate matter in excess of 180 milligrams per dry standard cubic meter(0.08 grains per dry standard cubic foot) when corrected for the amount of 02 in the stack gas | 264.343(c) |  |  |  |  |  |
| 818 | V.H.*11.e.* | METALS EMISSIONS CONTROLS: | By Guidance/Procedure apply 266.106 and 270.22 | NA | NA | NA |  |  |
| 819 | V.H.*11.e.1.* | Tier 1 feed rate screening limits for metals are specified in Part 266 Appendix I as a function of TESH, Terrain type and land use - No test required: | 266.106(b); 270.22(a)(3) |  |  |  |  |  |
| 820 | V.H.*11.e.1.a.* | Noncarcinogenic metals in all feed streams (HW, fuel, and industrial furnace feed stock) | 266.106(b)(1); 270.22(a)(3)(i-iii) |  |  |  |  |  |
| 821 | V.H.*11.e.1.b.* | Carcinogenic metals in all fee streams HW, fuel, and industrial furnace feed stock | 266.106(b)(2)(i-ii); 270.22(a)(3)(i-iii) |  |  |  |  |  |
| 822 | V.H.*11.e.1.c.* | Terrain-adjusted effective stack height (TESH)determined | 266.106(b)(3)(i-iii); 270.22(a)(3)(iv) |  |  |  |  |  |
| 823 | V.H.*11.e.1.d.* | Terrain type- Non-complex or Complex | 266.106(b)(4); 270.22(a)(3)(iv) |  |  |  |  |  |
| 824 | V.H.*11.e.1.e.* | Land use - urban or rural | 266.106(b)(5); 270.22(a)(3)(iv) |  |  |  |  |  |
| 825 | V.H.*11.e.1.f.* | Multiple Stacks - all emissions form calculated worst-case stack | 266.106(b)(6); 270.22(a)(3)(v) |  |  |  |  |  |
| 826 | V.H.*11.e.1.g.* | Eligible for Tier I | 266.106(b)(7); 270.22(a)(3)(vi) |  |  |  |  |  |
| 827 | V.H.*11.e.1.h.* | Metals feed rate monitoring | 266.106(b)(8); 270.22(a)(3)(i-iii) & (vii) |  |  |  |  |  |
| 828 | V.H.*11.e.2.* | Tier II emissions rate screening limits for metals are specified in Part 266 Appendix I as a function of: TESH, terrain type, and land use. Test required: | 266.106(c); 270.22(a)(1); 270.66 |  |  |  |  |  |
| 829 | V.H.*11.e.2.a.* | Noncarcinogenic metals | 266.106(c)(1) |  |  |  |  |  |
| 830 | V.H.*11.e.2.b.* | Carcinogenic metals | 266.106(c)(2) |  |  |  |  |  |
| 831 | V.H.*11.e.2.c.* | Emissions rate limits must be implemented by limiting feed rates of metals to trial burn levels, total feed rate per 266.102(e)(6) | 266.106(c)(3) |  |  |  |  |  |
| 832 | V.H.*11.e.2.d.* | Terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and eligibility criteria in 266.106(b) apply | 266.106(c)(4) |  |  |  |  |  |
| 833 | V.H.*11.e.2.e.* | Multiple stacks - all emissions from calculated worst-case stack | 266.106(c)(5) |  |  |  |  |  |
| 834 | V.H.*11.e.3.* | Tier III and Adjusted Tier I site-specific risk assessment - Test required: | 206.106(d); 270.22(a)(1); 270.66 |  |  |  |  |  |
| 835 | V.H.*11.e.3.a.* | Metals and controls must be demonstrated by testing using air dispersion modeling to predict the maximum annual average off-site ground level concentration and that acceptable ambient levels are not exceeded | 266.106(d)(1) |  |  |  |  |  |
| 836 | V.H.*11.e.3.b.* | Acceptable ambient levels listed in Part 266 Appendices IV and V | 266.106(d)(2) |  |  |  |  |  |
| 837 | V.H.*11.e.3.c.* | Carcinogenic metals - the sum of the ratios of the predicted maximum and annual average off-site ground level concentration to RSDs shall not exceed 1.0 | 266.106(d)(3) |  |  |  |  |  |
| 838 | V.H.*11.e.3.d.* | Noncarcinogenic metals - The predicted maximum annual average off-site ground level concentration or each metal shall not exceed the RAC | 266.106(d)(4) |  |  |  |  |  |
| 839 | V.H.*11.e.3.e.* | Multiple stacks- Must perform emissions testing and dispersion modeling to demonstrate aggregate emissions from all stacks do not exceed acceptable ambient levels | 266.106(d)(5) |  |  |  |  |  |
| 840 | V.H.*11.e.3.f.* | Feed rate limits set to levels during trial burn or compliance testing | 266.106(d)(6) |  |  |  |  |  |
| 841 | V.H.*11.e.4.* | Adjusted Tier 1 feed rate screening limits - Determined using Part 266 Appendix 1 screening limit and site-specific dispersion modeling. No test required | 266.106(e); 270.22(a)(3) |  |  |  |  |  |
| 842 | V.H.*11.e.5.* | Alternative Tier II or III implementation approaches | 266.106(f); 270.22(c) |  |  |  |  |  |
| 843 | V.H.*11.e.6.* | Emission testing for metals shall be conducted using the Multiple Metals Train as described in Part 266 Appendix IX: | 266.106(g) |  |  |  |  |  |
| 844 | V.H.*11.e.6.a.* | Metal testing shall be conducted using Method 0060 | 266.106(g)(1) |  |  |  |  |  |
| 845 | V.H.*11.e.6.b.* | Hexavalent Chromium – Chromium Emissions are assumed to be hexavalent chromium unless emission testing is conducted using Method 0061 | 266.106(g)(2) |  |  |  |  |  |
| 846 | V.H.*11.e.7.* | Dispersion modeling methods required under this section | 266.106(h) |  |  |  |  |  |
| 847 | V.H.*11.f.* | HCl & Cl2 EMISSIONS STANDARDS: | By Guidance/Procedure apply 266.107 and 270.22 | NA | NA | NA |  |  |
| 848 | V.H.*11.f.1.* | Tier 1 feed rate screening limits - Feed rate screening limits specified in Part 266 Appendix II as a function of TESH, Terrain type, and land use - Analysis required: Feed rate of total chlorine and chloride, organic and inorganic, in HW, fuels and industrial furnace feed stocks | 266.107(b)(1); 270.22(a)(5); D:270.22(a)(6) |  |  |  |  |  |
| 849 | V.H.*11.f.2.* | Tier II emissions rate screening limits - Emission rate screening limits specified in Part 266, Appendix III as a function of TESH, Terrain type, and land use - emission test required | 266.107(b)(2); D:270.22(a)(6) |  |  |  |  |  |
| 850 | V.H.*11.f.3.* | Terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and eligibility criteria in 266.106(b) apply | 266.107(b)(3); D:270.22(a)(6) |  |  |  |  |  |
| 851 | V.H.*11.f.4.* | Multiple stacks - If more than one on-site stack from a BIF, the incinerator or other treatment unit is subject to control HCl and Cl2 under RCRA permit or interim status and must comply with Tier I and II screening limits | 266.107(b)(4); D:270.22(a)(6) |  |  |  |  |  |
| 852 | V.H.*11.f.5.* | Tier III Site - Specific Risk Assessments - Emissions test required: | 266.107(c) |  |  |  |  |  |
| 853 | V.H.*11.f.5.a.* | Emission rate for HCl and Cl2 - demonstrated by using air dispersion modeling to predict the maximum annual average off-site ground level concentration for HCl and Cl2 and demonstrate that acceptable ambient levels are not exceeded | 266.107(c)(1); D:270.22(a)(6) |  |  |  |  |  |
| 854 | V.H.*11.f.5.b.* | Acceptable ambient levels are listed in Part 266 Appendix IV for HCl and Cl2 | 266.106(c)(2); D:270.22(a)(6) |  |  |  |  |  |
| 855 | V.H.*11.f.5.c.* | MULTIPLE STACKS - must demonstrate that aggregate emissions for all on-site stacks do not exceed acceptable ambient levels | 266.107(c)(3); D:270.22(a)(6) |  |  |  |  |  |
| 856 | V.H.*11.f.6.* | Averaging periods defined in 266.102(e)(6) | 266.107(d); D:270.22(a)(6) |  |  |  |  |  |
| 857 | V.H.*11.f.7.* | Adjusted Tier 1 feed rate screening limits - No test required | 266.107(e); D:270.22(a)(6) |  |  |  |  |  |
| 858 | V.H.*11.f.8.* | Emission testing - HCl and Cl2 sampling shall be conducted using the procedures described in Methods 0050 or 0051 | 266.107(f); D:270.22(a)(6) |  |  |  |  |  |
| 859 | V.H.*11.f.9.* | Dispersion modeling per 40 CFR 266.106(h) | 266.107(g) |  |  |  |  |  |
| 860 | V.H.*11.g.* | QA/QC PLAN | Guidance |  |  |  |  |  |
| 861 | V.H.*11.h.* | PROVIDE INFORMATION REGARDING ADDITIONAL DATA REQUIRED FOR DATA IN LIEU OF TESTING (DILO): | 270.19(c) |  |  |  |  |  |
| 862 | V.H.*11.h.1.* | Waste Description and analysis comparisons | 270.19(c)(4) |  |  |  |  |  |
| 863 | V.H.*11.h.2.* | Incinerator and pollution control design and operation condition comparison including firebox, burners/injectors, incinerator, air pollution control device and operation, and sampling port and process measurement locations | 270.19(c)(4) |  |  |  |  |  |
| 864 | V.H.*11.h.3.* | Previous trial burn results: | 270.19(c)(5) |  |  |  |  |  |
| 865 | V.H.*11.h.3.a.* | Sampling and analysis methods | 270.19(c)(5)(i) |  |  |  |  |  |
| 866 | V.H.*11.h.3.b.* | Methods and results of monitoring | 270.19(c)(5)(ii) |  |  |  |  |  |
| 867 | V.H.*11.h.4.* | Expected incinerator operation comparison | 270.19(c)(6) |  |  |  |  |  |
| 868 | V.H.*11.h.5.* | Data from comparable facility or unit and Supplemental Information | 270.19(c)(7) |  |  |  |  |  |
| 869 | V.H.*11.h.* | Provide QA/QC information for data validation, including chromatograms, Chain of Custody, sample preservation records, laboratory notes, etc. | 305.172(7)(J); EPA Publication SW-846; D:270.19(c)(7) |  |  |  |  |  |
| 870 | V.H.*11.h.* | Other Information for comparison including, but not limited to engineering drawings for incinerator, air pollution control devices, sampling ports and access, PI&D, elevations, and plan views, all sealed, signed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm’s name and Registration Number | 305.172(7)(J); D:270.19(c)(7) |  |  |  |  |  |
| 871 | V.I. | **Boilers and Industrial Furnaces** | 335.221-225; 266 subpart H | NA | NA | NA |  |  |
| 872 | V.I.1. | Complete and submit Table V.I.1 - Boilers and Industrial Furnaces in hard copy and editable electronic format | 270.22; 270.66 |  |  |  |  |  |
| 873 | V.I.2. | Complete and submit Table V.I.2 - Boiler and Industrial Furnace Permit Conditions, Monitoring, and Automatic Feed Cutoff Systems in hard copy and editable electronic format |  |  |  |  |  |  |
| 874 | V.I.3. | Complete and submit Table V.I.3 - Maximum Constituent Feed Rates in hard copy and editable electronic format |  |  |  |  |  |  |
| 875 | V.I.4. | Complete and submit Table V.I.4 - Maximum Allowable Emission Rates in hard copy and editable electronic format |  |  |  |  |  |  |
| 876 | V.I.5. | Complete and submit Table V.I.5 - Boiler and Industrial Furnace Permit Conditions, Monitoring, and Automatic Waste Feed Cutoff Systems - Short-Term Operation during shakedown period, trial burn period, and period after completion of the initial trial burn |  |  |  |  |  |  |
| 877 | V.I.6. | Describe procedures to manage reactive and/or incompatible wastes | 264.17 |  |  |  |  |  |
| 878 | V.I.7. | For FO20, FO21, FO22, FO23, FO26, and/or FO27 wastes the DRE is 99.9999% | 266.104(a)(3) | NA | NA | NA |  |  |
| 879 | V.I.8. | For trial burn, one or more of Appendix VIII organic compounds present in waste must be designated as POHC. Selection based on concentration in waste feed and degree of difficulty to incinerate. Complete and submit Table V.I.8 - Principal Organic Hazardous Constituents | 266.104(a)(2) |  |  |  |  |  |
| 880 | V.I.9. | Submit QA/QC plan for all sampling, analysis, and monitoring activities for trial burn | Guidance |  |  |  |  |  |
| 881 | V.I.10. | As applicable, information for facilities requesting addressing of permit conditions deferred to HWC MACT compliance | 270.235(1)(a)(i)-(iii); 305.572(a)(6) |  |  |  |  |  |
| 882 | V.I.*11.* | B/IF TB/RB CHECKLIST: | No Letter = Common D = DILO (Data In Lieu of Testing) | NA | NA | NA |  |  |
| 883 | V.I.*11.a.* | TRIAL BURN PLAN REQUIREMENTS: Provide information describing the plans for the test that demonstrates the following requirements: |  | NA | NA | NA |  |  |
| 884 | V.I.*11.a.1.* | Provide detailed engineering description of BIF: | 270.66(c)(3); D.270.22(a)(6) |  |  |  |  |  |
| 885 | V.I.*11.a.1.a.* | Manufacturer’s name and model number or the boiler or industrial furnace | 270.66(c)(3)(i); D:270.22(a)(6) |  |  |  |  |  |
| 886 | V.I.*11.a.1.b.* | Type of boiler or industrial furnace | 270.66(c)(3)(ii) D:270.22(a)(6) |  |  |  |  |  |
| 887 | V.I.*11.a.1.c.* | Maximum design capacity in appropriate units | 270.66(c)(3)(iii); D:270.22(a)(6) |  |  |  |  |  |
| 888 | V.I.*11.a.1.d.* | Description of hazardous waste feed system, and other fuels and feed stocks, nozzle, and injector | 270.66(c)(3)(iv); D:270.22(a)(6) |  |  |  |  |  |
| 889 | V.I.*11.a.1.e.* | Capacity of hazardous waste feed system | 270.66(c)(3)(v) D:270.22(a)(6) |  |  |  |  |  |
| 890 | V.I.*11.a.1.f.* | Typical and maximum flow rate of each waste stream | 270.66(c)(9); D:270.22(a)(6) |  |  |  |  |  |
| 891 | V.I.*11.a.1.g.* | Description of automatic waste feed cutoff system, cut off values, instrumentation with instrument range and accuracy | 270.66(c)(3)(vi); D:270.22(a)(6) |  |  |  |  |  |
| 892 | V.I.*11.a.1.h.* | Description of any air pollution control system | 270.66(c)(3)(vii); D:270.22(a)(6) |  |  |  |  |  |
| 893 | V.I.*11.a.1.i.* | Description of stack gas monitoring and pollution control monitoring systems with instrument range and accuracy | 270.66(c)(3)(viii); D:270.22(a)(6) |  |  |  |  |  |
| 894 | V.I.*11.a.1.j.* | Emergency shutdown procedures | 270.66(c)(3)(vi); 270.66(c)(8); D:270.22(a)(6) |  |  |  |  |  |
| 895 | V.I.*11.a.2.* | Description of air pollution control equipment operation and control, and planned operation conditions | 270.66(c)(7); D:270.22(a)(6) |  |  |  |  |  |
| 896 | V.I.*11.a.3.* | Identification of fugitive emission source, location, and their means of control | 270.66(f)(6); D:270.22(a)(6) |  |  |  |  |  |
| 897 | V.I.*11.a.4.* | Analysis of all and each feed stream including HW, other fuels, feed stocks: | 270.66(c)(1); D:270.22(a)(6) |  |  |  |  |  |
| 898 | V.I.*11.a.4.a.* | Heat value, levels of antimony, barium, beryllium, cadmium, chromium, lead mercury, silver, thallium, all metals routinely detected\*by EPA Methods used, total chlorine/chloride, and ash | 270.66(c)(1)(i); D:270.22(a)(6) |  |  |  |  |  |
| 899 | V.I.*11.a.4.b.* | Viscosity (if liquid) or description of physical form of feed stream | 270.66(c)(1)(ii); D:270.22(a)(6) |  |  |  |  |  |
| 900 | V.I.*11.a.5.* | Analysis each HW as fired: | 270.66(c)(2); D:270.22(a)(6) |  |  |  |  |  |
| 901 | V.I.*11.a.5.a.* | Identification of any hazardous constituents listed in Appendix VIII, Part 261 | 270.66(c)(2)(i); D:270.22(a)(6) |  |  |  |  |  |
| 902 | V.I.*11.a.5.b.* | Approximate quantification of hazardous constituents identified, SW-846 | 270.66(c)(2)(ii); D:270.22(a)(6) |  |  |  |  |  |
| 903 | V.I.*11.a.5.c.* | Description of blending procedures, analysis of blending materials, ratios (if applicable) | 270.66(c)(2)(iii); D:270.22(a)(6) |  |  |  |  |  |
| 904 | V.I.*11.a.6.* | POHC selection | 270.66(e); D:270.22(a)(6) |  |  |  |  |  |
| 905 | V.I.*11.a.7.* | Detailed description of sampling and monitoring procedures including locations, frequency, and planned analytical procedures | 270.66(c)(4); D:270.22(a)(6) |  |  |  |  |  |
| 906 | V.I.*11.a.8.* | Detailed test schedule including dates, durations, quantity of waste to be burned, and other factors: | 270.66(c)(5) |  |  |  |  |  |
| 907 | V.I.*11.a.8.a.* | Table with column for each test condition containing detailed test conditions for each waste stream, operating temperatures, waste feed rate, combustion gas velocity and flow rate, use of auxiliary feed, hazardous waste feed rates, other fuel feed rates, planned operating conditions for emission control equipment, other relevant parameters, justification for test condition including historical justification, if any | 270.66(c)(6) |  |  |  |  |  |
| 908 | V.I.*11.a.9.* | Other information including, but not limited to, Engineering Drawings including boiler, combustion chamber, air pollution control devices, sampling ports and access, PFD, PI&D, elevations and plan views, instrument/control measurement locations, piping containment, vessels, specifications, and calculations, all sealed as appropriate | 270.66(c)(9) |  |  |  |  |  |
| 909 | V.I.*11.b.* | DATA OBJECTIVES FOR TRIAL BURN: |  | NA | NA | NA |  |  |
| 910 | V.I.*11.b.1.* | Quantitative analysis of metals in feed streams, HW, and other fuels | 270.66(f)(1); D:270.22(a)(6) |  |  |  |  |  |
| 911 | V.I.*11.b.2.* | DRE trial burn: | 270.66(f)(2); D:270.22(a)(6) |  |  |  |  |  |
| 912 | V.I.*11.b.2.a.* | Quantitative analysis of POHCs in waste feed to incinerator | 270.66(f)(2)(i); D:270.22(a)(6) |  |  |  |  |  |
| 913 | V.I.*11.b.2.b.* | Quantitative analysis of exhaust gas for POHCs, O2, HCl | 270.66(f)(2)(iii); D:270.22(a)(6) |  |  |  |  |  |
| 914 | V.I.*11.b.2.c.* | Computation of DRE per 40 CFR 264.343(a) | 270.66(f)(2)(iii) |  |  |  |  |  |
| 915 | V.I.*11.b.3.* | For trial burn for chlorinated dioxins and furans - stack gas analysis for CDDs/CDFs, if applicable | 270.66(f)(3) |  |  |  |  |  |
| 916 | V.I.*11.b.4.* | For trial burn for particulate matter, metals, or HCl/C12, must provide stack gas analysis for PM, metals, or HCl/Cl2, and computations | 270.66(f)(4); D:270.22(a)(6) |  |  |  |  |  |
| 917 | V.I.*11.b.5.* | For trial burn for DRE, metals or HCl/Cl2, must provide analysis of scrubber water (if any), ash, other residues for POHCs, metals, and HCl/Cl2, and computations | 270.66(f)(5); D:270.22(a)(6) |  |  |  |  |  |
| 918 | V.I.*11.b.6.* | Continuous measurements of CO, O2, HC in stack gas | 270.66(f)(7); D:270.22(a)(6) |  |  |  |  |  |
| 919 | V.I.*11.b.7.* | Permit standards for burners-emission standards | 266.102(c); D:270.22(a)(6) |  |  |  |  |  |
| 920 | V.I.*11.c.* | STANDARDS TO CONTROL ORGANIC EMISSIONS: | 266.104; D:270.22(a)(6) | NA | NA | NA |  |  |
| 921 | V.I.*11.c.1.* | DRE standard of 99.99% for all HW constituents in the waste feed | 266.104(a)(1); D:270.22(a)(6)(i)(A) |  |  |  |  |  |
| 922 | V.I.*11.c.2.* | Designation of POHCs - those compounds in compliance with the DRE requirements in a trial burn in conformance with procedures prescribed in 270.66 | 270.66(a)(2); D:270.22(a)(6) |  |  |  |  |  |
| 923 | V.I.*11.c.3.* | Dioxin listed waste-must achieve DRE of 99.999% for each POHCs as stated above | 270.66(a)(3); D:270.22(a)(6) |  |  |  |  |  |
| 924 | V.I.*11.d.* | SPECIAL PROVISIONS FOR BOILERS: |  | NA | NA | NA |  |  |
| 925 | V.I.*11.d.1.* | Automatic waiver or DRE trial burn for Boilers that operate complaint with 266.110 that do not burn HW containing (or derived from) EPA hazardous waste FO20, FO21, FO22, FO23, FO26, FO27, are considered to be in conformance with DRE standard are exempt from DRE Trial Burn | 266.104(a)(4) |  |  |  |  |  |
| 926 | V.I.*11.d.2.* | Low risk waste exemption for DRE operation in Compliance with 266.109(a) is considered to be in compliance with 266.104(a)(1) and are exempt from DRE Trial Burn | 266.104(a)(5) |  |  |  |  |  |
| 927 | V.I.*11.e.* | CARBON MONOXIDE STANDARDS: |  | NA | NA | NA |  |  |
| 928 | V.I.*11.e.1.* | Stack gas cannot exceed 100 ppmv on an hourly rolling average, corrected for 7% oxygen, dry basis | 266.104(b)(1); D:270.22(a)(6) |  |  |  |  |  |
| 929 | V.I.*11.e.2.* | Co and oxygen shall be continuously monitored in conference with part 266 Appendix IX | 266.104(b)(2); D:270.22(a)(6) |  |  |  |  |  |
| 930 | V.I.*11.e.3.* | Compliance with 100ppmv must be continuously monitored and demonstrated during trial burn | 266.104(b)(3); D:270.22(a)(6) |  |  |  |  |  |
| 931 | V.I.*11.f.* | ALTERNATE CARBON MONOXIDE STANDARD: | 266.104(c) | NA | NA | NA |  |  |
| 932 | V.I.*11.f.1.* | Stack gas CO may exceed 100ppmv provided stack gas HC do not exceed 20 ppmv except as provided by 266.104(f) | 266.104(c)(1) |  |  |  |  |  |
| 933 | V.I.*11.f.2.* | HC must be established on hourly rolling hourly average, and reported as propane, continuously corrected to 7% O2, dry basis | 266.104(c)(2) |  |  |  |  |  |
| 934 | V.I.*11.f.3.* | HC shall be continuously monitored | 266.104(c)(3) |  |  |  |  |  |
| 935 | V.I.*11.f.4.* | Procedure for alternative CO standard has to be established during trail burn | 266.104(c)(4) |  |  |  |  |  |
| 936 | V.I.*11.g.* | SPECIAL REQUIREMENTS FOR FURNACES WHICH FEED WASTE SOLELY AS AN INGREDIENT AT LOCATIONS OTHER THAN THE “HOT” END MUST MEET HC LIMIT | 266.104(d) |  |  |  |  |  |
| 937 | V.I.*11.h.* | CONTROL FOR DIOXINS AND FURANS: |  | NA | NA | NA |  |  |
| 938 | V.I.*11.h.1.* | BIFs equipped with dry PM control that operate w/in temp. range of 450-750 EF- includes emissions testing for dioxins and furans must conduct a site specific risk assessment | 266.104(e); D:270.22(a)(6) |  |  |  |  |  |
| 939 | V.I.*11.i.* | MONITORING CO AND HC IN THE BY-PASS DUCT OF A CEMENT KILN | 266.104(f) |  |  |  |  |  |
| 940 | V.I.*11.j.* | USE OF EMISSIONS TESTING DATA TO DEMONSTRATE COMPLIANCE AND ESTABLISH OPERATING LIMITS | 266.104(g); D:270.22(a)(6) |  |  |  |  |  |
| 941 | V.I.*11.k.* | PARTICULATE MATTER (PM) EMISSIONS CONTROL: | 266.105; 266.102(e)(3) | NA | NA | NA |  |  |
| 942 | V.I.*11.k.1.* | May not exceed 180 mg/dscf (0.08 grains/dscf) corrected for 7% O2 | 266.105(a); D:270.22(a)(6) |  |  |  |  |  |
| 943 | V.I.*11.k.2.* | Exempt from PM standard if requirements of low risk waste exemption met in 266.109(b) | 266.105(b); 270.22(a)(4); D:270.22(a)(6) |  |  |  |  |  |
| 944 | V.I.*11.l.* | METAL EMISSIONS CONTROLS: | 266.106 | NA | NA | NA |  |  |
| 945 | V.I.*11.l.1.* | Tier 1 feed rate screening limits for metals are specified in Part 266 Appendix 1 as a function of TESH, terrain type, and land use - No test required: | 266.106(b); 270.22(a)(3); D:270.22(a)(6) |  |  |  |  |  |
| 946 | V.I.*11.l.1.a.* | Noncarcinogenic metals in all feed streams (HW, fuel and industrial furnace feed stock) | 266.106(b)(1); D:270.22(a)(6) |  |  |  |  |  |
| 947 | V.I.*11.l.1.b.* | Carcinogenic metals in all feed streams HW, fuel and industrial furnace feed stock | 266.106(b)(2); D:270.22(a)(6) |  |  |  |  |  |
| 948 | V.I.*11.l.1.c.* | TESH - Terrain -adjusted effective stack height determined | 266.106(b)(3); D:270.22(a)(6) |  |  |  |  |  |
| 949 | V.I.*11.l.1.d.* | Terrain type - Noncomplex or Complex | 266.106(b)(4); D:270.22(a)(6) |  |  |  |  |  |
| 950 | V.I.*11.l.1.e.* | Land use - urban or rural | 266.106(b)(5); D:270.22(a)(6) |  |  |  |  |  |
| 951 | V.I.*11.l.1.f.* | Multiple stacks - all emissions from calculated worst-case stack | 266.106(b)(6); D:270.22(a)(6) |  |  |  |  |  |
| 952 | V.I.*11.l.2.* | Tier II emission rate screening limits for metals are specified in Part 266 Appendix I as a function of: TESH, terrain type, and land use. Test required: | 266.106(c); D:270.22(a)(6) |  |  |  |  |  |
| 953 | V.I.*11.l.2.a.* | Noncarcinogenic metals | 266.106(c)(1); D:270.22(a)(6) |  |  |  |  |  |
| 954 | V.I.*11.l.2.b.* | Carcinogenic metals | 266.106(c)(2); D:270.22(a)(6) |  |  |  |  |  |
| 955 | V.I.*11.l.2.c.* | Emission rate limits must be implemented by limiting feed rates of metals to trial burn levels, total feed rate per 266.102(e)(6) | 266.106(c)(3); D:270.22(a)(6) |  |  |  |  |  |
| 956 | V.I.*11.l.2.d.* | Terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and eligibility criteria in 266.106(b) apply | 266.106(c)(4) |  |  |  |  |  |
| 957 | V.I.*11.l.2.e.* | Multiple stacks - all emissions from calculated worst-case stack | 266.106(c)(5); D:270.22(a)(6) |  |  |  |  |  |
| 958 | V.I.*11.l.3.* | Tier III and adjusted Tier I site specific risk assessment - Test required: | 266.106(d); D:270.22(a)(6) |  |  |  |  |  |
| 959 | V.I.*11.l.3.a.* | Metals control must be demonstrated by testing using air dispersion modeling to predict the maximum annual average off-site ground level concentration and that acceptable ambient levels are not exceeded | 266.106(d)(1); D:270.22(a)(6) |  |  |  |  |  |
| 960 | V.I.*11.l.3.b.* | Acceptable ambient levels listed in Part 266 Appendices IV and V | 266.106(d)(2); D:270.22(a)(6) |  |  |  |  |  |
| 961 | V.I.*11.l.3.c.* | Carcinogenic metals - sum of the ratios of the predicted maximum annual average off-site ground level concentration to RSDs shall not exceed 1.0 | 266.106(d)(3); D:270.22(a)(6) |  |  |  |  |  |
| 962 | V.I.*11.l.3.d.* | Noncarcinogenic metals - predicted maximum annual average ground level concentration or each metal shall not exceed the RAC | 266.106(d)(4); D:270.22(a)(6) |  |  |  |  |  |
| 963 | V.I.*11.l.3.e.* | Multiple stacks - Must perform emissions testing and dispersion modeling to demonstrate aggregate emissions from all stacks do not exceed acceptable ambient levels | 266.106(d)(5); D:270.22(a)(6) |  |  |  |  |  |
| 964 | V.I.*11.l.3.f.* | Feed rate limits set to levels during TB or conformance | 266.106(d)(6); D:270.22(a)(6) |  |  |  |  |  |
| 965 | V.I.*11.l.4.* | Adjusted Tier 1 feed rate screening limits - determined using Part 266 Appendix I screening limit and site-specific dispersion modeling - No test required | 266.106(e); D:270.22(a)(6) |  |  |  |  |  |
| 966 | V.I.*11.l.5.* | Alternative Tier or III implementation approaches | 266.106(f); D:270.22(a)(6) |  |  |  |  |  |
| 967 | V.I.*11.l.6.* | Emission testing for metals shall be conducted using the Multiple Metals Train as described in Part 266 Appendix IX: | 266.106(g); D:270.22(a)(6) |  |  |  |  |  |
| 968 | V.I.*11.l.6.a.* | Metal testing shall be conducted using Method 0060 | 266.106(g)(1) |  |  |  |  |  |
| 969 | V.I.*11.l.6.b.* | Hexavalent Chromium – Chromium Emissions are assumed to be hexavalent chromium unless emission testing is conducted using Method 0061 | 266.106(g)(2) |  |  |  |  |  |
| 970 | V.I.*11.l.7.* | Dispersion modeling | 266.106(h) |  |  |  |  |  |
| 971 | V.I.*11.m.* | HCl & Cl2 EMISSIONS STANDARDS | 266.107; D:270.22(e)(5) | NA | NA | NA |  |  |
| 972 | V.I.*11.m.1.* | Tier 1 feed rate screening limits - Feed rate screening limits specified in Part 266 Appendix II as a function of TESH, Terrain type, and land use - Analysis required: Feed rate of total chlorine and chloride, organic and inorganic, in HW, fuels and industrial furnace feed stocks | 266.107(b)(1); 270.22(a)(5); D:270.22(a)(6) |  |  |  |  |  |
| 973 | V.I.*11.m.2.* | Tier II emissions rate screening limits - Emission rate screening limits specified in Part 266, Appendix III as a function of TESH, Terrain type, and land use - emission testing is required: | 266.107(b)(2); D:270.22(a)(6) |  |  |  |  |  |
| 974 | V.I.*11.m.2.a.* | Terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and eligibility criteria in 266.106(b) apply | 266.107(b)(3); D:270.22(a)(6) |  |  |  |  |  |
| 975 | V.I.*11.m.2.b.* | Multiple stacks - If more than one on-site stack from a BIF, the incinerator or other treatment unit is subject to control HCl and Cl2 under RCRA permit or interim status and must comply Tier I and II screening limits | 266.107(b)(4); D:270.22(a)(6) |  |  |  |  |  |
| 976 | V.I.*11.m.3.* | Tier III Site - Specific Risk Assessments - Emissions testing is required: | 266.107(c) |  |  |  |  |  |
| 977 | V.I.*11.m.3.a.* | Emission rate for HCl and Cl2 - demonstrated by using air dispersion modeling to predict the maximum annual average off-site ground level concentration for HCl and Cl2 and demonstrate that acceptable ambient levels are not exceeded | 266.107(c)(1); D:270.22(a)(6) |  |  |  |  |  |
| 978 | V.I.*11.m.3.b.* | Acceptable ambient levels are listed in Part 266 Appendix IV for HCl and Cl2 | 266.106(c)(2); D:270.22(a)(6) |  |  |  |  |  |
| 979 | V.I.*11.m.4.* | MULTIPLE STACKS - must demonstrate that aggregate emissions for all on-site stacks do not exceed acceptable ambient levels | 266.107(c)(3); D:270.22(a)(6) |  |  |  |  |  |
| 980 | V.I.*11.m.5.* | Averaging periods defined in 266.102(e)(6) | 266.107(d); D:270.22(a)(6) |  |  |  |  |  |
| 981 | V.I.*11.m.6.* | Adjusted Tier 1 feed rate screening limits - No testing is required | 266.107(e); D:270.22(a)(6) |  |  |  |  |  |
| 982 | V.I.*11.m.7.* | Emission testing - HCl and Cl2 sampling shall be conducted using the procedures described in Part 266 Appendix IX | 266.107(f); D:270.22(a)(6) |  |  |  |  |  |
| 983 | V.I.*11.m.8.* | Dispersion modeling per 40 CFR 266.106(h) | 266.107(g) |  |  |  |  |  |
| 984 | V.I.*11.n.* | Provide a Quality Assurance Project Plan for the Trial Burn Plan | Guidance |  |  |  |  |  |
| 985 | V.I.*11.o.* | ADDITIONAL DATA FOR DATA IN LIEU OF TESTING (DILO): | 270.22(a)(6) | NA | NA | NA |  |  |
| 986 | V.I.*11.o.1.* | Comparison of wastes description and analysis | 270.22(a)(6)(i)(A) |  |  |  |  |  |
| 987 | V.I.*11.o.2.* | Comparison of design and operating conditions as required by 270.66 - for both devices | 270.22(a)(6)(i)(B) |  |  |  |  |  |
| 988 | V.I.*11.o.3.* | Data QA/QC for Data Validation including Chromatograms, Chain of Custody, Sample Preservation Records, Laboratory Notes, etc. | 270.22(a)(6)(i)(C); Guidance; EPA Publication SW-846 |  |  |  |  |  |
| 989 | V.I.*11.o.4.* | Other Information for Comparison including, but not limited to, Engineering Drawings, including boiler, combustion chamber, air pollution control devices, sampling ports and access, PED, PI&D, elevations and plan views, instrument/control measurement locations, piping, containment, vessels, specifications, and calculations, all sealed, signed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm’s name and Registration Number | 270.22(a)(6)(i)(C) |  |  |  |  |  |
| 990 | V.I.*12.* | STANDARDS FOR DIRECT TRANSFER | 266.111 | NA | NA | NA |  |  |
| 991 | V.I.*12.a.* | The regulations in this section apply to owners and operators of boilers and industrial furnaces subject to §§ 266.102 or 266.103 if hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit | 266.111(a) and (b) |  |  |  |  |  |
| 992 | V.I.*12.b.* | General operating requirements: | 266.111(c) |  |  |  |  |  |
| 993 | V.I.*12.b.1.* | No direct transfer of a pumpable hazardous waste shall be conducted from an open-top container to a boiler or industrial furnace | 266.111(c)(1) |  |  |  |  |  |
| 994 | V.I.*12.b.2.* | Direct transfer equipment used for pumpable hazardous waste shall always be closed, except when necessary to add or remove the waste, and shall not be opened, handled, or stored in a manner that may cause any rupture or leak | 266.111(c)(2) |  |  |  |  |  |
| 995 | V.I.*12.b.3.* | The direct transfer of hazardous waste to a boiler or industrial furnace shall be conducted so that it does not: | 266.111(c)(3) |  |  |  |  |  |
| 996 | V.I.*12.b.3.a.* | Generate extreme heat or pressure, fire, explosion, or violent reaction | 266.111(c)(3)(i) |  |  |  |  |  |
| 997 | V.I.*12.b.3.b.* | Produce uncontrolled toxic mists, fumes, dusts, or gases in quantities to threaten human health | 266.111(c)(3)(ii) |  |  |  |  |  |
| 998 | V.I.*12.b.3.c.* | Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions | 266.111(c)(3)(iii) |  |  |  |  |  |
| 999 | V.I.*12.b.3.d.* | Damage the structural integrity of the container or direct transfer equipment containing the waste | 266.111(c)(3)(iv) |  |  |  |  |  |
| 1000 | V.I.*12.b.3.e.* | Adversely affect the capability of the boiler or industrial furnace to meet the standards provided by §§ 266.104 through 266.107 | 266.111(c)(3)(v) |  |  |  |  |  |
| 1001 | V.I.*12.b.3.f.* | Threaten human health or the environment | 266.111(c)(3)(vi) |  |  |  |  |  |
| 1002 | V.I.*12.b.4.e.* | Hazardous waste shall not be placed in direct transfer equipment if it could cause the equipment or its secondary containment system to rupture, leak, corrode, or otherwise fail | 266.111(c)(4) |  |  |  |  |  |
| 1003 | V.I.*12.b.5.* | The owner or operator of the facility shall use appropriate controls and practices to prevent spills and overflows from the direct transfer equipment or its secondary containment systems. These include at a minimum: | 266.111(c)(5) |  |  |  |  |  |
| 1004 | V.I.*12.b.5.a.* | Spill prevention controls (e.g., check valves, dry discount couplings) | 266.111(c)(5)(i) |  |  |  |  |  |
| 1005 | V.I.*12.b.5.b.* | Automatic waste feed cutoff to use if a leak or spill occurs from the direct transfer equipment | 266.111(c)(5)(ii) |  |  |  |  |  |
| 1006 | V.I.*12.c.* | Areas where direct transfer vehicles (containers) are located. Applying the definition of container under this section, owners and operators must comply with the following requirements: | 266.111(d) |  |  |  |  |  |
| 1007 | V.I.*12.c.1.* | The containment requirements of § 264.175 of this chapter | 266.111(d)(1) |  |  |  |  |  |
| 1008 | V.I.*12.c.2.* | The use and management requirements of subpart I, part 265 of this chapter, except for §§ 265.170 and 265.174, and except that in lieu of the special requirements of § 265.176 for ignitable or reactive waste, the owner or operator may comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjacent property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's (NFPA) “Flammable and Combustible Liquids Code,” (1977 or 1981), (incorporated by reference, see § 260.11). The owner or operator must obtain and keep on file at the facility a written certification by the local Fire Marshall that the installation meets the subject NFPA codes | 266.111(d)(2) |  |  |  |  |  |
| 1009 | V.I.*12.c.3.* | The closure requirements of § 264.178 of this chapter | 266.111(d)(3) |  |  |  |  |  |
| 1010 | V.I.*12.d.* | Direct transfer equipment must meet the following requirements: | 266.111(e) |  |  |  |  |  |
| 1011 | V.I.*12.d.1.* | Owners and operators shall comply with the secondary containment requirements of § 265.193 of this chapter, except for paragraphs 265.193 (a), (d), (e), and (i) as follows: | 266.111(e)(1) |  |  |  |  |  |
| 1012 | V.I.*12.d.1.a.* | For all new direct transfer equipment, prior to their being put into service | 266.111(e)(1)(i) |  |  |  |  |  |
| 1013 | V.I.*12.d.1.b.* | For existing direct transfer equipment within 2 years after August 21, 1991 | 266.111(e)(1)(ii) |  |  |  |  |  |
| 1014 | V.I.*12.d.2.* | Requirements prior to meeting secondary containment requirements | 266.111(e)(2) |  |  |  |  |  |
| 1015 | V.I.*12.d.2.a.* | Existing direct transfer equipment that does not have secondary containment, the owner or operator shall determine whether the equipment is leaking or is unfit for use and shall obtain and keep on file a written assessment reviewed and certified by a qualified, registered professional engineer in accordance with § 270.11(d) of this chapter | 266.111(e)(2)(i) |  |  |  |  |  |
| 1016 | V.I.*12.d.2.b.* | Determine whether the direct transfer equipment is adequately designed and has sufficient structural strength and compatibility with the waste(s) to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider the following: | 266.111(e)(2)(ii) |  |  |  |  |  |
| 1017 | V.I.*12.d.2.b.1.* | Design standard(s) to which the direct transfer equipment was constructed | 266.111(e)(2)(ii)(A) |  |  |  |  |  |
| 1018 | V.I.*12.d.2.b.2.* | Hazardous characteristics of the waste(s) that have been or will be handled | 266.111(e)(2)(ii)(B) |  |  |  |  |  |
| 1019 | V.I.*12.d.2.b.3.* | Existing corrosion protection measures | 266.111(e)(2)(ii)(C) |  |  |  |  |  |
| 1020 | V.I.*12.d.2.b.4.* | Documented age of the equipment (otherwise, an estimate of the age) | 266.111(e)(2)(ii)(D) |  |  |  |  |  |
| 1021 | V.I.*12.d.2.b.5.* | Results of a leak test or other integrity examination so that effects of temperature variations, vapor pockets, cracks, leaks, corrosion, and erosion are accounted for | 266.111(e)(2)(ii)(E) |  |  |  |  |  |
| 1022 | V.I.*12.d.2.c.* | If the direct transfer equipment is found to be leaking or unfit for use, the owner or operator shall comply with the requirements of §§ 265.196 (a) and (b) of this chapter | 266.111(e)(2)(iii) |  |  |  |  |  |
| 1023 | V.I.*12.d.3.* | Inspections and recordkeeping | 266.111(e)(3) |  |  |  |  |  |
| 1024 | V.I.*12.d.3.a.* | The owner or operator must inspect at least once each operating hour when hazardous waste during transferred from the transport vehicle (container) to the B/IF: | 266.111(e)(3)(i) |  |  |  |  |  |
| 1025 | V.I.*12.d.3.a.1.* | Overfill/spill control equipment to ensure it is in good working order | 266.111(e)(3)(i)(A) |  |  |  |  |  |
| 1026 | V.I.*12.d.3.a.2.* | The above ground portions of the direct transfer equipment to detect corrosion, erosion, or releases of waste | 266.111(e)(3)(i)(B) |  |  |  |  |  |
| 1027 | V.I.*12.d.3.a.3.* | Data from monitoring equipment and leak-detection equipment to ensure that the direct transfer equipment is being operated according to its design | 266.111(e)(3)(i)(C) |  |  |  |  |  |
| 1028 | V.I.*12.d.3.b.* | The owner or operator must inspect cathodic protection systems, if used, for proper functioning according to the schedule provided by § 265.195(b): | 266.111(e)(3)(ii) |  |  |  |  |  |
| 1029 | V.I.*12.d.3.c.* | Records of inspections made under this paragraph shall be maintained in the operating record at the facility, available for inspection at least 3 years from the inspection date | 266.111(e)(3)(iii) |  |  |  |  |  |
| 1030 | V.I.*12.d.4.* | Design and installation of new equipment. Must comply with § 265.192 | 266.111(e)(4) |  |  |  |  |  |
| 1031 | V.I.*12.d.5.* | Response to leaks or spills must comply with § 265.196 | 266.111(e)(5) |  |  |  |  |  |
| 1032 | V.I.*12.d.6.* | Owners and operators must comply with § 265.197 for Closure, except for § 265.197 (c)(2) through (c)(4) | 266.111(e)(6) |  |  |  |  |  |
| 1033 | V.J. | **Drip Pads** | 335.152(a)(15); 264 subpart W | NA | NA | NA |  |  |
| 1034 | V.J.*~.* | Submit a Drip Pad Engineering Report including at a minimum: | 264.570-573; 270.26 |  |  |  |  |  |
| 1035 | V.J.1. | Complete and submit Table V.J.1. - Drip Pads in hard copy and editable electronic format | 270.26(a) |  |  |  |  |  |
| 1036 | V.J.2. | Complete and submit Table V.J.2. - Drip Pad Synthetic Liner System in hard copy and editable electronic format |  |  |  |  |  |  |
| 1037 | V.J.3.*~.* | Describe detailed plans and engineering report, including: |  |  |  |  |  |  |
| 1038 | V.J.3.*~.* | The engineering report must address: |  |  |  |  |  |  |
| 1039 | V.J.3.*~.a.* | Design characteristics: | 264.573; 270.26(c)(1) |  |  |  |  |  |
| 1040 | V.J.3.*~.a.1.* | Constructed of non-earthen materials | 264.573(a)(1) |  |  |  |  |  |
| 1041 | V.J.3.*~.a.2.* | Sloped to free-drain treated wood drippage, rain, and other waters or solutions | 264.573(a)(2) |  |  |  |  |  |
| 1042 | V.J.3.*~.a.3.* | Curb or berm around the perimeter | 264.573(a)(3) |  |  |  |  |  |
| 1043 | V.J.3.*~.a.4.* | Hydraulic conductivity of less than or equal to 1x10-7 cm/s | 264.573(a)(4)(i) |  |  |  |  |  |
| 1044 | V.J.3.*~.a.5.* | Sufficient strength and thickness | 264.573(a)(5) |  |  |  |  |  |
| 1045 | V.J.3.*~.b.* | For artificial liners: |  |  |  |  |  |  |
| 1046 | V.J.3.a. | Seaming method |  |  |  |  |  |  |
| 1047 | V.J.3.b. | Surface preparation method |  |  |  |  |  |  |
| 1048 | V.J.3.c. | Tensile strength |  |  |  |  |  |  |
| 1049 | V.J.3.d. | Impact resistance |  |  |  |  |  |  |
| 1050 | V.J.3.e. | Compatibility Demonstration |  |  |  |  |  |  |
| 1051 | V.J.3.f. | Foundation design (settlement potential, bearing capacity/stability and potential for bottom heave blow-out) |  |  |  |  |  |  |
| 1052 | V.J.3.*~.c.* | For leakage collection system: |  |  |  |  |  |  |
| 1053 | V.J.3.g. | Capacity of system: |  |  |  |  |  |  |
| 1054 | V.J.3.g.1. | Rate of leakage removal |  |  |  |  |  |  |
| 1055 | V.J.3.g.2. | Capacity of sumps |  |  |  |  |  |  |
| 1056 | V.J.3.g.3. | Thickness of mounding & maximum hydraulic head |  |  |  |  |  |  |
| 1057 | V.J.3.h. | Pipe material and strength |  |  |  |  |  |  |
| 1058 | V.J.3.i. | Pipe network spacing and grading |  |  |  |  |  |  |
| 1059 | V.J.3.j. | Collection sump material and strength |  |  |  |  |  |  |
| 1060 | V.J.3.k. | Drainage media specifications & performance |  |  |  |  |  |  |
| 1061 | V.J.3.l. | Analysis that shows pipe and pipe perforation size will prevent clogging |  |  |  |  |  |  |
| 1062 | V.J.3.m. | Compatibility demonstration |  |  |  |  |  |  |
| 1063 | V.J.*4.* | Provide description of leak detection system (applies only if drip pads are constructed after 12/24/92 per 264.570(a) | 270.26(c)(3) |  |  |  |  |  |
| 1064 | V.J.*5.* | Provide description of how drip pad will be maintained | 270.26(c)(4) |  |  |  |  |  |
| 1065 | V.J.*6.* | Provide description of the collection system | 270.26(c)(5) |  |  |  |  |  |
| 1066 | V.J.*7.* | Provide description of control of run-on | 270.26(c)(6) |  |  |  |  |  |
| 1067 | V.J.*8.* | Provide description of control of run-off | 270.26(c)(7) |  |  |  |  |  |
| 1068 | V.J.*9.* | Provide description of when drippage will be removed from collection system to prevent overflow | 270.26(c)(8) |  |  |  |  |  |
| 1069 | V.J.*10.* | Provide description of procedures for cleaning the drip pad (at least weekly) | 270.26(c)(9) |  |  |  |  |  |
| 1070 | V.J.*11.* | Provide description of operating practices and procedures | 264.573; 270.26(c)(10) |  |  |  |  |  |
| 1071 | V.J.*12.* | Provide description of removal procedures for waste | 270.26(c)(11) |  |  |  |  |  |
| 1072 | V.J.*13.* | Provide description of collection and holding units for run-on/off are emptied | 270.26(c)(12) |  |  |  |  |  |
| 1073 | V.J.*14.* | Provide description of process equipment used if treatment is carried out on the drippad; | 270.26(c)(13) |  |  |  |  |  |
| 1074 | V.J.*15.* | Provide descriptions of inspection requirements in accordance with 264.573 and 270.14(b)(5) | 270.26(c)(14) |  |  |  |  |  |
| 1075 | V.J.*16.* | Provide description of how HW residues and contaminated materials will be removed from Drip Pads at closure | 270.26(c)(16) |  |  |  |  |  |
| 1076 | V.J.*17.* | If applicant elects to comply with 264.572(b) instead of 264.572(a), demonstrate the drip pad has the following: | 264.573(b) |  |  |  |  |  |
| 1077 | V.J.*17.a.* | Synthetic liner installed below the drip pad. The liner must have: sufficient thickness and strength, foundation capable of supporting; and installed to cover all surrounding land that could come into contact with waste | 264.573(b)(1) |  |  |  |  |  |
| 1078 | V.J.*17.b.* | Leakage detection system installed above the liner and must be/have: | 264.573(b)(2) |  |  |  |  |  |
| 1079 | V.J.*17.b.1.* | Chemically resistant | 264.573(b)(2)(i)(A) |  |  |  |  |  |
| 1080 | V.J.*17.b.2.* | Sufficient strength and thickness | 264.573(b)(2)(i)(B) |  |  |  |  |  |
| 1081 | V.J.*17.b.3.* | Prevention of clogging | 264.573(b)(2)(ii) |  |  |  |  |  |
| 1082 | V.J.*17.b.4.* | Designed to detect failure | 264.573(b)(2)(iii) |  |  |  |  |  |
| 1083 | V.J.*17.c.* | Leakage detection system above the liner designed to collect leakage from the drip pad. Permittee must record, etc. any leakage collected | 264.573(b)(3) |  |  |  |  |  |
| 1084 | V.J.*18.* | Describe how you will ensure drip pads are free of cracks, gaps, corrosion or other deterioration | 264.573(c) |  |  |  |  |  |
| 1085 | V.J.*19.* | Demonstrate how the drip pad is designed to convey, drain, and collect liquid resulting from drippage or precipitation to prevent run-off | 264.573(d) |  |  |  |  |  |
| 1086 | V.J.*20.* | Unless protected by structure described in 264.570 (b) ensure drip pads have run-on control system (TCEQ recommends 25-yr, 24-hr rainfall event) | 264.573(e) |  |  |  |  |  |
| 1087 | V.J.*21.* | Unless protected by structure described in 264.570 (b) ensure drip pads have run-off control system (TCEQ recommends 25-yr, 24-hr rainfall event) | 264.573(f) |  |  |  |  |  |
| 1088 | V.J.*22.* | Describe the means of overflow prevention | 264.573(h) |  |  |  |  |  |
| 1089 | V.J.*23.* | Indicate the inspection frequency | 264.573(i) |  |  |  |  |  |
| 1090 | V.J.*24.* | Describe procedures that ensure all hazardous waste (HW) is held on drip pad until drippage ceases | 264.573(k) |  |  |  |  |  |
| 1091 | V.J.*25.* | Describe procedures that ensure run-on/off removed ASAP after storms | 264.573(l) |  |  |  |  |  |
| 1092 | V.J.*26.* | Management of release of HW from the drip pad: Provide a plan of removing wastes, caused by a release of HW (e.g., leakage from leak detection system), that includes: | 264.573(m) 264.573(m)(1) |  |  |  |  |  |
| 1093 | V.J.*26.a.* | Documentation of record of discovery | 264.573(m)(1)(i) |  |  |  |  |  |
| 1094 | V.J.*26.b.* | Documentation of the portion of the drip pad involved | 264.573(m)(1)(ii) |  |  |  |  |  |
| 1095 | V.J.*26.c.* | Steps necessary to repair and clean-up release | 264.573(m)(1)(iii) |  |  |  |  |  |
| 1096 | V.J.*26.d.* | Notification of the Regional office and Ex. Director | 264.573(m)(1)(iv) |  |  |  |  |  |
| 1097 | V.J.*27.* | Provide documentation of procedures to maintain records in the facility | 264.573(o) |  |  |  |  |  |
| 1098 | V.J.*28.* | Provide assessment of existing pad integrity: including written plan for upgrading, repairing and modifying to meet the requirements of 264.573(b) and PE certification | 264.571 |  |  |  |  |  |
| 1099 | V.J.*29.* | Provide certification requirements sealed, signed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm’s name and Registration Number | 264.571(a); 264.573(a)(4)(ii); 264.573(g); 264.573(m)(3); 270.26(c)(15) |  |  |  |  |  |
| 1100 | V.K. | **Miscellaneous Units** | 335.152(a)(16); 270.23 | NA | NA | NA |  |  |
| 1101 | V.K.*~.* | Submit a Miscellaneous Unit(s) Engineering Report including the following at a minimum: | 264.600-602 |  |  |  |  |  |
| 1102 | V.K.1. | Complete and submit Table V.K - Miscellaneous Units in hard copy and editable electronic format |  |  |  |  |  |  |
| 1103 | V.K.2. | Provide application information on design requirements of 305 and 335 and 264 subparts I through O; Part 270; Part 63, subpart EEE; and Part 146, as appropriate | 264.601(a) |  |  |  |  |  |
| 1104 | V.K.3. | For units which involves combustion, provide emission data or trial burn plan; complete Tables V.H.1-5 (for incinerators) or Tables V.I.1-5 (for BIFs) |  |  |  |  |  |  |
| 1105 | V.K.*4.* | Provide Engineering Report including the following: |  |  |  |  |  |  |
| 1106 | V.K.*4.a.* | Air Quality Addendum should be completed, Section IX of Part B |  |  |  |  |  |  |
| 1107 | V.K.*4.b.* | Plans and description of the design, construction, and operation of the miscellaneous units |  |  |  |  |  |  |
| 1108 | V.K.*4.c.* | Physical characteristics of materials in construction of the miscellaneous unit |  |  |  |  |  |  |
| 1109 | V.K.*4.d.* | Address prevention of releases to groundwater or subsurface environment: | 264.601(a) |  |  |  |  |  |
| 1110 | V.K.*4.d.1.* | Amount, characteristics potential migration of wastes | 264.601(a)(1) |  |  |  |  |  |
| 1111 | V.K.*4.d.2.* | Hydrogeologic/geologic of the unit and area | 264.601(a)(2) |  |  |  |  |  |
| 1112 | V.K.*4.d.3.* | Quality of groundwater | 264.601(a)(3) |  |  |  |  |  |
| 1113 | V.K.*4.d.4.* | Quantity and flow direction | 264.601(a)(4) |  |  |  |  |  |
| 1114 | V.K.*4.d.5.* | Proximity to groundwater users and rates | 264.601(a)(5) |  |  |  |  |  |
| 1115 | V.K.*4.d.6.* | Land use | 264.601(a)(6) |  |  |  |  |  |
| 1116 | V.K.*4.d.7.* | Potential to affect surface waters | 264.601(a)(7) |  |  |  |  |  |
| 1117 | V.K.*4.d.8*. | Potential for health risks | 264.601(a)(8) |  |  |  |  |  |
| 1118 | V.K.*4.d.9.* | Potential for damage by exposure | 264.601(a)(9) |  |  |  |  |  |
| 1119 | V.K.*4.e.* | Prevention of adverse effects through surface water considering: | 264.601(b) |  |  |  |  |  |
| 1120 | V.K.*4.e.1.* | Amount and characteristics of wastes | 264.601(b)(1) |  |  |  |  |  |
| 1121 | V.K.*4.e.2.* | Confining and collecting systems | 264.601(b)(2) |  |  |  |  |  |
| 1122 | V.K.*4.e.3.* | Hydrogeologic characteristics & topography of unit & area | 264.601(b)(3) |  |  |  |  |  |
| 1123 | V.K.*4.e.4.* | Patterns of precipitation | 264.601(b)(4) |  |  |  |  |  |
| 1124 | V.K.*4.e.5.* | Quality, quantity, direction of groundwater flow | 264.601(b)(5) |  |  |  |  |  |
| 1125 | V.K.*4.e.6.* | Proximity to surface waters & soils | 264.601(b)(6) |  |  |  |  |  |
| 1126 | V.K.*4.e.7.* | Uses & quality standards for surface waters | 264.601(b)(7) |  |  |  |  |  |
| 1127 | V.K.*4.e.8.* | Quality of surface waters & soils | 264.601(b)(8) |  |  |  |  |  |
| 1128 | V.K.*4.e.9.* | Land use | 264.601(b)(9) |  |  |  |  |  |
| 1129 | V.K.*4.e.10.* | Potential for health risks | 264.601(b)(10) |  |  |  |  |  |
| 1130 | V.K.*4.e.11.* | Potential for damage by exposure | 264.601(b)(11) |  |  |  |  |  |
| 1131 | V.K.*4.f.* | Prevention of releases through air: | 264.601(c) |  |  |  |  |  |
| 1132 | V.K.*4.f.1.* | Amount & characteristics of waste | 264.601(c)(1) |  |  |  |  |  |
| 1133 | V.K.*4.f.2.* | Effectiveness of systems to prevent emissions | 264.601(c)(2) |  |  |  |  |  |
| 1134 | V.K.*4.f.3.* | Operating characteristics | 264.601(c)(3) |  |  |  |  |  |
| 1135 | V.K.*4.f.4.* | Meteorologic & topographic characteristics surrounding area | 264.601(c)(4) |  |  |  |  |  |
| 1136 | V.K.*4.f.5.* | Local air quality | 264.601(c)(5) |  |  |  |  |  |
| 1137 | V.K.*4.f.6.* | Potential for health risks | 264.601(c)(6) |  |  |  |  |  |
| 1138 | V.K.*4.f.7.* | Potential for damage by exposure | 264.601(c)(7) |  |  |  |  |  |
| 1139 | V.K.*4.g.* | Monitoring, analysis, inspection, response, reporting and corrective action | 264.602 |  |  |  |  |  |
| 1140 | V.K.*4.h.* | Detailed hydrologic, geologic, and meteorologic assessments and land use maps | 270.23 (b) |  |  |  |  |  |
| 1141 | V.K.*4.i.* | Exposure information | 270.23(c) |  |  |  |  |  |
| 1142 | V.K.*4.j.* | Laboratory testing area | 270.23(d) |  |  |  |  |  |
| 1143 | V.K.*4.k.* | Any additional information determined by the Director for evaluation of unit and environmental performance standards of 264.100(b) | 270.23(e) |  |  |  |  |  |
| 1144 | V.K.*5.* | Provide detailed plans and specifications individually sealed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm's name and Registration Number | 305.50(a)(7) |  |  |  |  |  |
| 1145 | V.L. | **Containment Buildings** | 335.152(a)(20); 264 Subpart DD | NA | NA | NA |  |  |
| 1146 | V.L.*~.* | Submit a Miscellaneous Unit(s) Engineering Report including the following at a minimum: | 264.1100-1101(c)(3) and 264.1101(d-e) |  |  |  |  |  |
| 1147 | V.L.*1.* | Complete and submit Table V.L. - Containment Buildings in hard copy and editable electronic format |  |  |  |  |  |  |
| 1148 | V.L.*2.* | Provide plans and description of the design, construction, and operation of the containment building: | 264.1101 |  |  |  |  |  |
| 1149 | V.L.*2.a.* | Completely enclosed to prevent precipitation, wind, and run-on | 264.1101(a)(1) |  |  |  |  |  |
| 1150 | V.L.*2.b.* | Should be constructed with structural strength and thickness and address: | 264.1101(a)(2) |  |  |  |  |  |
| 1151 | V.L.*2.b.1.* | Primary barrier against fugitive dust emissions | 264.1101(a)(2)(i) |  |  |  |  |  |
| 1152 | V.L.*2.b.2.* | Ability to prevent wastes from migration | 264.1101(a)(2)(ii) |  |  |  |  |  |
| 1153 | V.L.*2.c.* | Compatibility data | 264.1101(a)(3) |  |  |  |  |  |
| 1154 | V.L.*2.d.* | The primary barrier | 264.1101(a)(4) |  |  |  |  |  |
| 1155 | V.L.*2.e.* | Containment buildings used to manage wastes containing free liquids should have: | 264.1101(b) |  |  |  |  |  |
| 1156 | V.L.*2.e.1.* | Primary barrier to prevent migration | 264.1101(b)(1) |  |  |  |  |  |
| 1157 | V.L.*2.e.2.* | Liquid collection and removal system (e.g. geomembrane covered by a concrete surface) that is sloped to drain liquids and minimize hydraulic head on the containment system at the earliest practicable time | 264.1101(b)(2) |  |  |  |  |  |
| 1158 | V.L.*2.e.3.* | Secondary containment system including secondary barrier and leak detection system constructed with: | 264.1101(b)(3) |  |  |  |  |  |
| 1159 | V.L.*2.e.3.a.* | A bottom slope of 1% or more | 264.1101(b)(3)(i)(A) |  |  |  |  |  |
| 1160 | V.L.*2.e.3.b.* | Granular drainage material with hydraulic conductivity of 1x10-2 cm/s or more and a thickness of 12 in. or constructed with synthetic or geonet with transmissivity of 3x10-5 m2/s or more | 264.1101(b)(3)(i)(B); 264.1101(b)(3)(ii) |  |  |  |  |  |
| 1161 | V.L.*2.e.3.c.* | Materials that are chemically resistant | 264.1101(b)(3)(iii) |  |  |  |  |  |
| 1162 | V.L.*2.f.1.* | Controls and practices to ensure containment of HW within the unit, at a minimum must address or contain: | 264.1101(c)(1) |  |  |  |  |  |
| 1163 | V.L.*2.f.1.a.* | Primary barrier: free of cracks, gaps, corrosion or other deterioration | 264.1101(c)(1)(i) |  |  |  |  |  |
| 1164 | V.L.*2.f.1.b.* | Maintain level of stored treated HW within the containment walls | 264.1101(c)(1(ii) |  |  |  |  |  |
| 1165 | V.L.*2.f.1.c.* | Measures to prevent tracking of HW outside of the unit | 264.1101(c)(1)(iii) |  |  |  |  |  |
| 1166 | V.L.*2.f.1.d.* | Measures to control fugitive air emissions | 264.1101(c)(1)(iv) |  |  |  |  |  |
| 1167 | V.L.*2.f.2.* | Certification signed by a licensed PE that the building meets the design requirements | 264.1101(c)(2) |  |  |  |  |  |
| 1168 | V.L.*2.f.3.* | Procedures in case of release or repair of the unit | 264.1101(c)(3) |  |  |  |  |  |
| 1169 | V.L.*2.g.* | For containment buildings that contain areas with and without a secondary containment system permittee must address: | 264.1101(d) |  |  |  |  |  |
| 1170 | V.L.*2.g.1.* | Design and operation in accordance with 246.1101(a-c) | 264.1101(d)(1) |  |  |  |  |  |
| 1171 | V.L.*2.g.2.* | Prevent release of liquids | 264.1101(d)(2) |  |  |  |  |  |
| 1172 | V.L.*2.g.3.* | Maintain facility’s operating log | 264.1101(d)(3) |  |  |  |  |  |
| 1173 | V.L.*2.h.* | Waiver requirements for secondary containment | 264.1101(e) |  |  |  |  |  |
| 1174 | V.L.*3.* | Provide detailed plans and specifications individually sealed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm's name and Registration Number | 305.50(a)(7) |  |  |  |  |  |
| 1175 | VI. | **Geology Report** |  | NA | NA | NA |  |  |
| 1176 | VI.*~.* | Submit all geoscience work signed and dated by a licensed professional geoscientist with current Texas registration along with the Registered Geoscience Firm’s name and Registration Number | Texas Geoscience Practice Act and 22 TAC 851 Subchapter D; 305.50(a)(4)(D); 305.50(a)(6); 305.50(b)(6) |  |  |  |  |  |
| 1177 | VI.A. | **Geology and Topography** |  | NA | NA | NA |  |  |
| 1178 | VI.A.1. | Provide description of active geologic processes: |  |  |  |  |  |  |
| 1179 | VI.A.1.a.*~.* | Submit or address Identification of faults, active potentially active or inactive: |  |  |  |  |  |  |
| 1180 | VI.A.1.a.*~.a.* | Holocene sediments or man-made structures have been displaced |  |  |  |  |  |  |
| 1181 | VI.A.1.a.*~.b.* | Describe techniques used to identify faults |  |  |  |  |  |  |
| 1182 | VI.A.1.a.*~.c.* | Zones of significant surface deformation |  |  |  |  |  |  |
| 1183 | VI.A.1.a.*~.d.* | Effects of active faults on potential for waste migration |  |  |  |  |  |  |
| 1184 | VI.A.1.a.*~.e.* | Clearance from active fault to ensure liners will not be disrupted |  |  |  |  |  |  |
| 1185 | VI.A.1.a. | For capacity expansion of an existing hazardous waste (HW) facility, submit or address: | 305.50(a)(4)(D); 305.50(a)(10)(E) |  |  |  |  |  |
| 1186 | VI.A.1.a.1. | Geologic literature review (should include maps of surface faults, subsurface structure maps, field investigations, etc.) |  |  |  |  |  |  |
| 1187 | VI.A.1.a.2. | Descriptions and maps of faulting, fracturing, and lineations in the area |  |  |  |  |  |  |
| 1188 | VI.A.1.a.3. | Constructed maps and cross-sections of the area, using surface data i.e., surface faults, gas seeps, linerations, etc. A surface structure map should also be included |  |  |  |  |  |  |
| 1189 | VI.A.1.a.4. | Minimum of 2 structural X-sections that show geologic units which show Holocene sediments underground sources of drinking water, and lithology, and on a scale to depict the local geology within 3000’ of the location. Cross sections should cross at the unit location |  |  |  |  |  |  |
| 1190 | VI.A.1.a.5. | Minimum of 2 structural subsurface maps; one should be made on the shallowest mapable subsurface marker, the other made on a deeper horizon |  |  |  |  |  |  |
| 1191 | VI.A.1.a.6. | Field surveillance; to check for potential faults/lineations indicated by aerial photos, topographic maps, seismic/subsurface maps, etc. |  |  |  |  |  |  |
| 1192 | VI.A.1.a.7. | Any additional information in defining the geology of the area, such as seismic data, isopachs, potentiometric surface maps, etc. |  |  |  |  |  |  |
| 1193 | VI.A.1.a.8. | Demonstration that a fault within 3000 ft. of location has not had displacement with Holocene times. If such a fault exists, cannot pass within 200 feet of surface unit |  |  |  |  |  |  |
| 1194 | VI.A.1.a.9. | If fault that has been active within Holocene and is located within 3000 ft., it must be demonstrated that: the fault is not transmissive and will not allow groundwater movement; and that there is no potential for subsidence that may endanger the stability of the surface unit |  |  |  |  |  |  |
| 1195 | VI.A.1.b. | A discussion of the extent of land surface subsidence in the vicinity of the facility including total recorded subsidence and past and projected rates subsidence. For facilities at low elevations along the coast, address the rates of subsidence and potential for future submergence beneath Gulf water |  |  |  |  |  |  |
| 1196 | VI.A.1.c. | Provide a discussion to which the facility is subject to erosion such as over-land flow, channeling, gullying, other fluvial processes, and shoreline erosion |  |  |  |  |  |  |
| 1197 | VI.A.1.d. | Complete and submit Table VI.A.1 - Major Geologic Formations in hard copy and editable electronic format |  |  |  |  |  |  |
| 1198 | VI.A.2. | Provide a description as applicable of Regional Physiography and Topography (applicable for land base units, except waste piles exempt from GW monitoring requirements, and tanks which require contingent post-closure plan): |  |  |  |  |  |  |
| 1199 | VI.A.2.a. | Distance and direction to nearest surface water body |  |  |  |  |  |  |
| 1200 | VI.A.2.b. | Slope of land surface |  |  |  |  |  |  |
| 1201 | VI.A.2.c. | Direction of slope |  |  |  |  |  |  |
| 1202 | VI.A.2.d. | Maximum elevation of facility |  |  |  |  |  |  |
| 1203 | VI.A.2.e. | Minimum elevation of facility |  |  |  |  |  |  |
| 1204 | VI.A.3. | Provide a description as applicable of Regional Geology (applicable for land base units, except waste piles exempt from GW monitoring requirements, and tanks which require contingent post-closure plan). Description of the regional geology of the area should include: |  |  |  |  |  |  |
| 1205 | VI.A.3.a. | A geologic map with text describing stratigraphic and lithologic properties |  |  |  |  |  |  |
| 1206 | VI.A.3.b. | A description of generalized stratigraphic column from the base of lowermost groundwater to surface (at least 1,000 ft.) The description for each geologic unit should include: |  |  |  |  |  |  |
| 1207 | VI.A.3.b.*1.* | Geologic age |  |  |  |  |  |  |
| 1208 | VI.A.3.b.*2.* | Lithology |  |  |  |  |  |  |
| 1209 | VI.A.3.b.*3.* | Thickness |  |  |  |  |  |  |
| 1210 | VI.A.3.b.*4.* | Depth |  |  |  |  |  |  |
| 1211 | VI.A.3.b.*5.* | Geometry |  |  |  |  |  |  |
| 1212 | VI.A.3.b.*6.* | Hydraulic conductivity |  |  |  |  |  |  |
| 1213 | VI.A.3.b.*7.* | Depositional history |  |  |  |  |  |  |
| 1214 | VI.A.4. | Provide results of Subsurface Soils Investigation Report: |  |  |  |  |  |  |
| 1215 | VI.A.4.a. | Borings and boring logs: |  |  |  |  |  |  |
| 1216 | VI.A.4.a.*1.* | Completed using established exploration methods |  |  |  |  |  |  |
| 1217 | VI.A.4.a.*2.* | Investigative procedures discussed in report: |  |  |  |  |  |  |
| 1218 | VI.A.4.a.*2.a.* | Sufficient number of borings to establish stratigraphy and assess potential pathways of pollution migration |  |  |  |  |  |  |
| 1219 | VI.A.4.a.*2.b.* | Identify uppermost and underlying hydraulically interconnected aquifers |  |  |  |  |  |  |
| 1220 | VI.A.4.a.*2.c.* | Borings should penetrate through the uppermost aquifer and deep enough to identify lower aquiclude |  |  |  |  |  |  |
| 1221 | VI.A.4.a.*2.d.* | Borings must be completed to depth of at least 30 ft. below the deepest unit excavation |  |  |  |  |  |  |
| 1222 | VI.A.4.a.*2.e.* | Detailed description of stratigraphic complexities, i.e. slickensides, pinch outs, fractures, etc. |  |  |  |  |  |  |
| 1223 | VI.A.4.a.*2.f.* | Whenever possible, electric logs should run on each borehole |  |  |  |  |  |  |
| 1224 | VI.A.4.a.*2.g.* | Hollow stem auger test run where determination of initial water level is important |  |  |  |  |  |  |
| 1225 | VI.A.4.a.*2.h.* | Key on boring log giving description of soil type and its consistency and structure |  |  |  |  |  |  |
| 1226 | VI.A.4.b. | Provide minimum of two cross-sectional drawings prepared from the borings depicting the generalized soil strata at the site |  |  |  |  |  |  |
| 1227 | VI.A.4.c. | Provide a text which describes investigator’s interpretations of subsurface stratigraphy based on field investigation |  |  |  |  |  |  |
| 1228 | VI.A.4.d. | Complete and submit Table VI.A.4 - Waste Management Area Subsurface Conditions in hard copy and editable electronic format. The report should address: |  |  |  |  |  |  |
| 1229 | VI.A.4.d.*1.* | Laboratory /field tests |  |  |  |  |  |  |
| 1230 | VI.A.4.d.*2.* | Test procedures |  |  |  |  |  |  |
| 1231 | VI.A.4.d.*3.* | Major strata encountered characterized by |  |  |  |  |  |  |
| 1232 | VI.A.4.d.*3.a.* | Unified soil classification |  |  |  |  |  |  |
| 1233 | VI.A.4.d.*3.b.* | Moisture content |  |  |  |  |  |  |
| 1234 | VI.A.4.d.*3.c.* | % less than #200 sieve |  |  |  |  |  |  |
| 1235 | VI.A.4.d.*3.d.* | Atterberg limits |  |  |  |  |  |  |
| 1236 | VI.A.4.d.*3.e.* | Coefficient of permeability |  |  |  |  |  |  |
| 1237 | VI.A.4.d.*4.* | Field permeability tests for sand and silt units to supplement laboratory tests |  |  |  |  |  |  |
| 1238 | VI.A.4.d.*5.* | Particle size distribution and relative density based on penetration resistance (for coarse-grained soils) |  |  |  |  |  |  |
| 1239 | VI.A.4.d.*6.* | For fine-grained soils: cohesive shear strength based on penetrometer of unconfined compression tests, dry unit weight, and degree of saturation |  |  |  |  |  |  |
| 1240 | VI.A.4.e. | For land treatment units, provide a description including the following: |  |  |  |  |  |  |
| 1241 | VI.A.4.e.1. | Name and description of soil series |  |  |  |  |  |  |
| 1242 | VI.A.4.e.2. | Physical properties of the series (i.e., depth, permeability, water capacity, soil ph, erosion factors) |  |  |  |  |  |  |
| 1243 | VI.A.4.e.3. | Engineering properties and classifications i.e., USDA Texture, Unified Soil classification , size gradation, Atterberg limits |  |  |  |  |  |  |
| 1244 | VI.A.4.e.4. | Cation exchange capacity (CEC) of soils in meq/100g |  |  |  |  |  |  |
| 1245 | VI.A.4.*f.* | Submit an aerial photograph of soil series on land treatment area; if not available, a soil series map |  |  |  |  |  |  |
| 1246 | VI.B. | **Facility Ground-Water** |  | NA | NA | NA |  |  |
| 1247 | VI.B.1. | Provide description of Regional Aquifers: |  |  |  |  |  |  |
| 1248 | VI.B.1.a. | Aquifers and associated geologic units as described in Sect. VI.A.3.b. |  |  |  |  |  |  |
| 1249 | VI.B.1.b. | Constituent materials of the aquifer(s) |  |  |  |  |  |  |
| 1250 | VI.B.1.c. | Water-bearing and transmitting properties |  |  |  |  |  |  |
| 1251 | VI.B.1.d. | Water table or artesian conditions |  |  |  |  |  |  |
| 1252 | VI.B.1.e. | If aquifers are hydraulically connected |  |  |  |  |  |  |
| 1253 | VI.B.1.f. | Regional water table contour map or potentiometric surface map |  |  |  |  |  |  |
| 1254 | VI.B.1.g. | Rate of groundwater flow, ft./yr. estimated |  |  |  |  |  |  |
| 1255 | VI.B.1.h. | Total Dissolved Solids (TDS) values |  |  |  |  |  |  |
| 1256 | VI.B.1.i. | Identification areas of recharge to the aquifers (for new land based units must include hydrogeologic report) |  |  |  |  |  |  |
| 1257 | VI.B.1.j. | Present use of groundwater |  |  |  |  |  |  |
| 1258 | VI.B.1.*k.* | Identification of aquifers for each well within 1 mile. Paragraph III.C.1.e of the Part A permit application should be updated. |  |  |  |  |  |  |
| 1259 | VI.B.2. | Provide groundwater conditions for each land based unit which requires post-closure care specified in 335. 156-167; including: |  |  |  |  |  |  |
| 1260 | VI.B.2.a. | Records of water level measurements in borings (noted on logs and X-Sections) should be taken at time of boring and after equilibration (at least 24-hrs.) |  |  |  |  |  |  |
| 1261 | VI.B.2.b. | Historic maximum and minimum static water level |  |  |  |  |  |  |
| 1262 | VI.B.2.c. | Upper and lower limits of the uppermost and hydraulically connected aquifers |  |  |  |  |  |  |
| 1263 | VI.B.2.d. | Site specific water table contour or potentiometric surface map for each aquifer encountered. Ground-water flow direction and rate should be calculated |  |  |  |  |  |  |
| 1264 | VI.B.2.e. | Discussion of the variation of hydraulic gradient across site. Calculations of maximum, minimum, and average ground-water flow velocities, and pump test data (where appropriate) |  |  |  |  |  |  |
| 1265 | VI.B.2.f. | Analysis of likely pathways for pollutant migration |  |  |  |  |  |  |
| 1266 | VI.B.3. | Provide description of the detection monitoring program: | EPA Publications 530-SW-89-026, 625/6-90/016b and SW-846; RCRA Groundwater Monitoring 1992 OSWER Directive 9950.1 |  |  |  |  |  |
| 1267 | VI.B.3.a. | The groundwater monitoring system must have/address: |  |  |  |  |  |  |
| 1268 | VI.B.3.a.*1.* | Sufficient number of wells at justified location and depths | 335.163(1) |  |  |  |  |  |
| 1269 | VI.B.3.a.*2.* | Background water not affected by leakage from regulated unit: | 335.163(1)(A) |  |  |  |  |  |
| 1270 | VI.B.3.a.*2.a.* | Determination of background quality | 335.163(1)(A)(i) |  |  |  |  |  |
| 1271 | VI.B.3.a.*2.b.* | Sampling at other wells | 335.163(1)(A)(ii) |  |  |  |  |  |
| 1272 | VI.B.3.a.*3.* | Represent the quality of background water passing the POC | 335.163(1)(B) |  |  |  |  |  |
| 1273 | VI.B.3.a.*4.* | Capability to resolve detection of contamination migrated from HWM unit | 335.163(1)(C) |  |  |  |  |  |
| 1274 | VI.B.3.a.*5.* | HWM area that contains more than one regulated unit, separate groundwater not required | 335.163(2) |  |  |  |  |  |
| 1275 | VI.B.3.a.*6.* | All wells cased to maintain integrity of borehole | 335.163(3) |  |  |  |  |  |
| 1276 | VI.B.3.a.*7.* | Sampling and analysis procedures must include at a minimum: | 335.163(4) |  |  |  |  |  |
| 1277 | VI.B.3.a.*7.a.* | Sample collection procedures | 335.163(4)(A) |  |  |  |  |  |
| 1278 | VI.B.3.a.*7.b.* | Sample preservation and shipment procedures | 335.163(4)(B) |  |  |  |  |  |
| 1279 | VI.B.3.a.*7.c.* | Analytical procedures | 335.163(4)(C) |  |  |  |  |  |
| 1280 | VI.B.3.a.*7.d.* | Chain of custody control | 335.163(4)(D) |  |  |  |  |  |
| 1281 | VI.B.3.a.*8.* | Appropriate and accurate sampling analytical methods | 335.163(5) |  |  |  |  |  |
| 1282 | VI.B.3.a.*9.* | Determination of groundwater surface elevation each time groundwater is sampled | 335.163(6) |  |  |  |  |  |
| 1283 | VI.B.3.a.*10.* | Number and kind of samples collected: | 335.163(7) |  |  |  |  |  |
| 1284 | VI.B.3.a.*10.a.* | A sequence of at least 4 samples taken at an interval providing sample independence | 335.163(7)(A) |  |  |  |  |  |
| 1285 | VI.B.3.a.*10.b.* | A proposed alternate sample procedure | 335.163(7)(B) |  |  |  |  |  |
| 1286 | VI.B.3.a.*11.* | Statistical methods: | 335.163(8) |  |  |  |  |  |
| 1287 | VI.B.3.a.*11.a.* | Parametric analysis of variance (ANOVA) | 335.163(8)(A) |  |  |  |  |  |
| 1288 | VI.B.3.a.*11.b.* | Non-parametric ANOVA (based on ranks) | 335.163(8)(B) |  |  |  |  |  |
| 1289 | VI.B.3.a.*11.c.* | Tolerance or prediction interval procedure | 335.163(8)(C) |  |  |  |  |  |
| 1290 | VI.B.3.a.*11.d.* | Control chart approach | 335.163(8)(D) |  |  |  |  |  |
| 1291 | VI.B.3.a.*12.e.* | Alternative approach approved by ED | 335.163(8)(E) |  |  |  |  |  |
| 1292 | VI.B.3.a.*13.* | Any statistical method chosen under 335.163(8), must meet the performance standard as appropriate: | 335.163(9) |  |  |  |  |  |
| 1293 | VI.B.3.a.*13.a.* | Be appropriate to the distribution of chemical parameters and hazardous constituents | 335.163(9)(A) |  |  |  |  |  |
| 1294 | VI.B.3.a.*13.b.* | Test under Type 1 error level no less than 0.01 for each testing period | 335.163(9)(B) |  |  |  |  |  |
| 1295 | VI.B.3.a.*13.c.* | Indicate whether a Control chart approach is to be used | 335.163(9)(C) |  |  |  |  |  |
| 1296 | VI.B.3.a.*13.d.* | If tolerance interval or prediction interval is used: the report must include levels of confidence, tolerance intervals, and % population | 335.163(9)(D) |  |  |  |  |  |
| 1297 | VI.B.3.a.*13.e.* | Expected or predicted Practical Quantitation Limit (PQL) | 335.163(9)(E) |  |  |  |  |  |
| 1298 | VI.B.3.a.*13.f.* | Procedures to control or correct seasonal and spatial variability | 335.163(9)(F) |  |  |  |  |  |
| 1299 | VI.B.3.a.*14.* | Groundwater monitoring data must be maintained at the facility operating record | 335.163(10) |  |  |  |  |  |
| 1300 | VI.B.3.a.*15.* | Detection monitoring program must establish: | 335.164 |  |  |  |  |  |
| 1301 | VI.B.3.a.*15.a.* | Indicator parameters, waste constituents, reaction products to be monitored | 335.164(1) |  |  |  |  |  |
| 1302 | VI.B.3.a.*15.b.* | Types, quantities, and concentrations of constituents | 335.164(1)(A) |  |  |  |  |  |
| 1303 | VI.B.3.a.*15.c.* | Mobility, stability, and persistence of waste constituents or reaction products in the unsaturated zone | 335.164(1)(B) |  |  |  |  |  |
| 1304 | VI.B.3.a.*15.d.* | Detection of indicator parameters | 335.164(1)(C) |  |  |  |  |  |
| 1305 | VI.B.3.a.*15.e.* | Concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the background | 335.164(1)(D) |  |  |  |  |  |
| 1306 | VI.B.3.a.*16.* | Groundwater monitoring system is at the compliance point specified under 335.161 | 335.164(2) |  |  |  |  |  |
| 1307 | VI.B.3.a.*17.* | Chemical parameter and hazardous constituents per 335.163(7) | 335.164(3) |  |  |  |  |  |
| 1308 | VI.B.3.a.*18.* | Background groundwater concentration values for proposed parameters | 335.164(3)(A-C) |  |  |  |  |  |
| 1309 | VI.B.3.a.*19.* | Frequencies for collecting samples and conducting statistical tests | 335.164(4) |  |  |  |  |  |
| 1310 | VI.B.3.a.*20.* | Statistically significant increase in any constituent or parameter capable of being identified at any compliance point monitoring well | 335.164(6-7) |  |  |  |  |  |
| 1311 | VI.B.3.b. | Submit a justification for the selection of proposed suite of waste specific parameters specified in Table VI.B.3.c |  |  |  |  |  |  |
| 1312 | VI.B.3.c. | Submit a proposed sampling and analysis plan, including: |  |  |  |  |  |  |
| 1313 | VI.B.3.c.*1.* | Sampling and analytical methods |  |  |  |  |  |  |
| 1314 | VI.B.3.c.*2.* | Statistical comparison procedures |  |  |  |  |  |  |
| 1315 | VI.B.3.c.*3.* | Alternate methods demonstrated as appropriate for groundwater analysis | 335.163(5) |  |  |  |  |  |
| 1316 | VI.B.3.d. | Submit a specific statistical method and process for comparing constituent concentrations to background, including: | 335.163 |  |  |  |  |  |
| 1317 | VI.B.3.d.*1.* | Sampling procedures must provide representative samples of the regulated activity in time and manner of sampling |  |  |  |  |  |  |
| 1318 | VI.B.3.d.*2.* | All data submitted in a manner consistent with TCEQ Quality Control and Assurance Project Plan for Monitoring and Measurements Activities Relating to RCRA and UIC (TCEQ QAPP) |  |  |  |  |  |  |
| 1319 | VI.B.3.e. | Complete and submit Table VI.B.3.b - Unit Groundwater Detection Monitoring System in hard copy and editable electronic format |  |  |  |  |  |  |
| 1320 | VI.B.3.f. | Complete and submit Table VI.B.3.c - Groundwater Detection Monitoring Parameters in hard copy and editable electronic format; specifying: |  |  |  |  |  |  |
| 1321 | VI.B.3.f.1. | The suite of waste specific parameters |  |  |  |  |  |  |
| 1322 | VI.B.3.f.2. | The sampling frequencies and calendar intervals |  |  |  |  |  |  |
| 1323 | VI.B.3.f.3. | The analytical method and laboratory predicted detection limit and predicted Practical Quantitation Limit of the analyses |  |  |  |  |  |  |
| 1324 | VI.B.3.f.4. | The concentration limit which will be the basis for determining whether a release has occurred from the waste management unit/area |  |  |  |  |  |  |
| 1325 | VI.B.3.g. | Submit drawings depicting the monitoring well design, current and proposed |  |  |  |  |  |  |
| 1326 | VI.B.3.h. | Submit at least one map of the entire facility on one or more 8 1/2” X 11” sheets with a scale to show: |  |  |  |  |  |  |
| 1327 | VI.B.3.h.1. | Monitoring well location design, current and proposed |  |  |  |  |  |  |
| 1328 | VI.B.3.h.2. | Soil-pore liquid and core sampling points, current and proposed |  |  |  |  |  |  |
| 1329 | VI.B.3.h.3. | Waste management unit(s) area |  |  |  |  |  |  |
| 1330 | VI.B.3.h.4. | Property boundary |  |  |  |  |  |  |
| 1331 | VI.B.3.h.5. | Point of compliance |  |  |  |  |  |  |
| 1332 | VI.B.3.h.6. | Direction of groundwater |  |  |  |  |  |  |
| 1333 | VI.B.3.h.7. | Extent of any known plume of contamination |  |  |  |  |  |  |
| 1334 | VI.B.3.i. | Complete and submit the statement indicating: |  |  |  |  |  |  |
| 1335 | VI.B.3.i.*1.* | Typical depth to groundwater in the uppermost aquifer |  |  |  |  |  |  |
| 1336 | VI.B.3.i.*2.* | The name of the geological formation the uppermost aquifer is located in |  |  |  |  |  |  |
| 1337 | VI.B.3.i.*3.* | The lithological description of the formation |  |  |  |  |  |  |
| 1338 | VI.B.3.i.*4.* | The formation thickness |  |  |  |  |  |  |
| 1339 | VI.B.3.i.*5.* | The general direction of groundwater flow |  |  |  |  |  |  |
| 1340 | VI.C. | **Exemption from Groundwater Monitoring** |  |  |  |  |  |  |
| 1341 | VI.C.*~.a.* | If applicable, demonstrate potential for migration of liquid from waste management unit to the upper most aquifer during active life of unit | 335.156(b)(4) |  |  |  |  |  |
| 1342 | VI.C.*~.b.* | Provide demonstration certified by qualified geologist or geotechnical engineer | 335.156(b)(4) |  |  |  |  |  |
| 1343 | VI.C.*~.c.* | Address the following: |  |  |  |  |  |  |
| 1344 | VI.C.1. | Thickness of soil between the base of the unit and saturated zone |  |  |  |  |  |  |
| 1345 | VI.C.2. | Thickness of saturated zone |  |  |  |  |  |  |
| 1346 | VI.C.3. | Head pressure of the liquids |  |  |  |  |  |  |
| 1347 | VI.C.4. | Properties of the saturated and unsaturated zone (including permeability, effective porosity, and homogeneity) |  |  |  |  |  |  |
| 1348 | VI.C.5. | Total life of facility |  |  |  |  |  |  |
| 1349 | VI.D. | **Unsaturated Zone Monitoring** | 264.278 |  |  |  |  |  |
| 1350 | VI.D.1. | Provide list of all hazardous constituents: | 264.278(a) |  |  |  |  |  |
| 1351 | VI.D.1.a. | Current parameters | 264.278(a) |  |  |  |  |  |
| 1352 | VI.D.1.b. | Proposed parameters | 264.278(a) |  |  |  |  |  |
| 1353 | VI.D.2. | Provide number of soil-pore liquid sample points: | 264.278(b) |  |  |  |  |  |
| 1354 | VI.D.2.c. | Depth of sample points | 264.278(b) |  |  |  |  |  |
| 1355 | VI.D.2.d. | Equipment used for soil-pore liquid monitoring | 264.278(b) |  |  |  |  |  |
| 1356 | VI.D.3. | Provide number of soil-core sampling points: |  |  |  |  |  |  |
| 1357 | VI.D.3.e. | Depth of soil-core sampling points |  |  |  |  |  |  |
| 1358 | VI.D.3.f. | Indicate on a facility map location of all sampling points |  |  |  |  |  |  |
| 1359 | VII. | **Closure and Post-Closure Plans** |  | NA | NA | NA |  |  |
| 1360 | VII.*~.* | Submit a closure plan and/or post-closure plan, as applicable, including the following information: | 270.14(b)(13); 264 Subpart G.; Chapter 350 |  |  |  |  |  |
| 1361 | VII.*~.1.* | Certification of deed recordation of waste disposal activities shall be provided for closure of facilities with wastes in place | 335.5 |  |  |  |  |  |
| 1362 | VII.*~.2.* | Survey plat and notices for land disposal unit closed before application | 264.116; 264.119 |  |  |  |  |  |
| 1363 | VII.*~.3.* | Closure Performance Standards describes how closure would: minimize the need for further maintenance; control, minimize, or eliminate post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and comply with the closure requirements of Subpart G and unit-specific closure requirements | 264.111 |  |  |  |  |  |
| 1364 | VII.A. | **Closure** |  | NA | NA | NA |  |  |
| 1365 | VII.A.*1.* | Complete and submit Table VII.A - Unit Closure in hard copy and editable electronic format |  |  |  |  |  |  |
| 1366 | VII.A.*2.* | Provide time and activities required for partial and final closure activities including: | 264.112(b) |  |  |  |  |  |
| 1367 | VII.A.*2.a.* | Description of closure of each unit | 264.112(b)(1) |  |  |  |  |  |
| 1368 | VII.A.*2.b.* | Final closure and maximum extent of operation | 264.112(b)(2) |  |  |  |  |  |
| 1369 | VII.A.*2.c.* | Maximum waste inventory over the active life of the facility | 264.112(b)(3) |  |  |  |  |  |
| 1370 | VII.A.*2.d.* | Inventory removal, disposal or decontamination of equipment , structures and soils | 264.112(b)(4) |  |  |  |  |  |
| 1371 | VII.A.*2.e.* | Detailed description of other activities during closure (i.e. ground-water monitoring, leachate collection, and run-on and run-off control) | 264.112(b)(5) |  |  |  |  |  |
| 1372 | VII.A.*2.f.* | Schedule for closure of each unit and for final closure of the facility | 264.112(b)(6) |  |  |  |  |  |
| 1373 | VII.A.*2.g.* | Estimate of expected year of final closure | 264.112(b)(7) |  |  |  |  |  |
| 1374 | VII.A.*3.* | Certification of Closure: Submit a certification to TCEQ IHW Section which indicates that within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of the completion of final closure, that a Certification of Closure and report must be submitted to TCEQ IHW Section for review. | 264.115 |  |  |  |  |  |
| 1375 | VII.A.*4.* | Closure of Containers: plan must ensure that: | 264.178 |  |  |  |  |  |
| 1376 | VII.A.*4.a.* | All wastes and waste residues must be removed from containment system | 264.178 |  |  |  |  |  |
| 1377 | VII.A.*4.b.* | Containers, liner, bases, and soil containing or contaminated with HW or residues must be decontaminated removed at closure | 264.178; 350.32 Remedy Standard A |  |  |  |  |  |
| 1378 | VII.A.*5.* | Closure of Tank Systems: plan must ensure that closure will: | 264.197 |  |  |  |  |  |
| 1379 | VII.A.*5.a.* | Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, structures and equipment contaminated with waste | 264.197(a); 350.32 Remedy Standard A |  |  |  |  |  |
| 1380 | VII.A.*5.b.* | If not all contaminated soils can be practically removed, perform closure and post-closure as a landfill per 264.310 and 350.33 Remedy Standard B | 264.197(b) |  |  |  |  |  |
| 1381 | VII.A.*5.c.* | A contingent closure and post-closure plan for closure as a landfill if tank system does not have satisfactory secondary containment per 264.193(b-f) and not granted variance for the secondary containment system per 264.193(g), the plan must include: | 264.197(c); 350.33 Remedy Standard B |  |  |  |  |  |
| 1382 | VII.A.*5.c.1.* | Requirements under 264.197(a-b) | 264.197(c)(1) |  |  |  |  |  |
| 1383 | VII.A.*5.c.2.* | Contingent post-closure care plan | 264.197(c)(2) |  |  |  |  |  |
| 1384 | VII.A.*5.c.3.* | Cost estimates for closure and post-closure care and contingent closure and post-closure plan | 264.197(c)(3) |  |  |  |  |  |
| 1385 | VII.A.*5.c.4.* | Financial assurance based on 264.197(c)(3) | 264.197(c)(4) |  |  |  |  |  |
| 1386 | VII.A.*5.c.5.* | Must meet all financial responsibility requirements for landfills under 264, Subparts G and H | 264.197(c)(5) |  |  |  |  |  |
| 1387 | VII.A.*6.* | Closure of Surface Impoundments: plan must ensure that closure will: | 335.169; 264.228 |  |  |  |  |  |
| 1388 | VII.A.*6.a.* | Remove and decontaminate all wastes and contaminated materials | 335.169(a)(1); 264.228(a)(1) |  |  |  |  |  |
| 1389 | VII.A.*6.b.* | Eliminate free liquid wastes or solidify/stabilize remaining materials | 335.169(a)(2); 264.228(a)(2)(i-ii) |  |  |  |  |  |
| 1390 | VII.A.*6.c.* | SI Final cover must be designed and constructed to: | 264.228(a)(2)(iii) |  |  |  |  |  |
| 1391 | VII.A.*6.c.1.* | Provide long-term minimization of the migration of liquids through the closed impoundment | 335.169(a)(2)(A); 264.228(a)(2)(iii)(A) |  |  |  |  |  |
| 1392 | VII.A.*6.d.* | Minimize maintenance | 335.169(a)(2)(B); 264.228(a)(2)(iii)(B) |  |  |  |  |  |
| 1393 | VII.A.*6.e.* | Promote drainage and minimize erosion or abrasion | 335.169(a)(2)(C); 264.228(a)(2)(iii)(C) |  |  |  |  |  |
| 1394 | VII.A.*6.f.* | Accommodate settling and subsidence | 335.169(a)(2)(D); 264.228(a)(2)(iii)(D) |  |  |  |  |  |
| 1395 | VII.A.*6.g.* | Ensure that permeability is less than or equal to bottom liner system or natural sub-soil present | 335.169(a)(2)(E); 264.228(a)(2)(iii)(E) |  |  |  |  |  |
| 1396 | VII.A.*6.h.* | For clean closure, the closure plan must identify 350.32 Remedy Standard A | 350.32 Remedy Standard A |  |  |  |  |  |
| 1397 | VII.A.*6.i.* | If wastes are left in place, applicant must comply with closure requirements for landfills per 264.310 and post closure per 264.117 through 264.120. The closure and post-closure plan must include: | 335.169(b); 264.228(b); 350.33 Remedy Standard B. |  |  |  |  |  |
| 1398 | VII.A.*6.i.1.* | Maintaining the integrity and effectiveness of final cover including repairs of the cap | 335.169(b)(1); 264.228(b)(1) |  |  |  |  |  |
| 1399 | VII.A.*6.i.2.* | Maintenance and monitoring of leak detection system | 335.169(b)(2); 264.228(b)(2) |  |  |  |  |  |
| 1400 | VII.A.*6.i.3.* | Maintenance and monitoring of groundwater monitoring system | 335.169(b)(3); 264.228(b)(3) |  |  |  |  |  |
| 1401 | VII.A.*6.i.4.* | Prevention of erosion from run-on and run-off | 335.169(b)(4); 264.228(b)(4) |  |  |  |  |  |
| 1402 | VII.A.*6.j.* | If intend to remove wastes but do not have constructed liner system, contingent post-closure plan per 264.118 and cost estimates per 264.142 & 264.144 must be included | 335.169(c) |  |  |  |  |  |
| 1403 | VII.A.*7.* | Closure of Waste Piles: Plan must ensure that closure will: | 264.258 |  |  |  |  |  |
| 1404 | VII.A.*7.a.* | Remove or decontaminate all wastes and contaminated materials | 264.258(a); 350.32 Remedy Standard A |  |  |  |  |  |
| 1405 | VII.A.*7.b.* | If not all contaminated materials can be removed, applicant must close the waste pile as a landfill, and provide post-closure care plan per 264.310 | 264.258(b); 350.33 Remedy Standard B |  |  |  |  |  |
| 1406 | VII.A.*7.c.* | If intend to remove wastes but do not have constructed liner system, contingent post-closure plan per 264.118 and cost estimates per 264.142 & 264.144 must be included | 264.258(c) |  |  |  |  |  |
| 1407 | VII.A.*8.* | Closure of Land Treatment Units: Plan must ensure that: | 335.172; 264.280 |  |  |  |  |  |
| 1408 | VII.A.*8.a.* | During closure of land treatment facilities the owner or operator must comply with the following: |  |  |  |  |  |  |
| 1409 | VII.A.*8.a.1.* | Continue operations necessary to maximize degradation, transformation, or immobilization of hazardous constituents | 335.172(a)(1); 264.280(a)(1) |  |  |  |  |  |
| 1410 | VII.A.*8.a.2.* | Minimize run-off of hazardous constituents | 335.172(a)(2); 264.280(a)(2) |  |  |  |  |  |
| 1411 | VII.A.*8.a.3.* | Maintain run-on control system | 335.172(a)(3); 264.280(a)(3) |  |  |  |  |  |
| 1412 | VII.A.*8.a.4.* | Maintain run-off management system | 335.172(a)(4); 264.280(a)(4) |  |  |  |  |  |
| 1413 | VII.A.*8.a.5.* | Control wind dispersal of hazardous waste | 335.172(a)(5); 264.280(a)(5) |  |  |  |  |  |
| 1414 | VII.A.*8.a.6.* | Continue to comply with prohibitions and controls concerning food chain crops per 264.276 | 335.172(a)(6); 264.280(a)(6) |  |  |  |  |  |
| 1415 | VII.A.*8.a.7.* | Continue unsaturated zone monitoring per 264.278 | 335.172(a)(7); 264.280(a)(7) |  |  |  |  |  |
| 1416 | VII.A.*8.a.8.* | Maintain vegetative cover | 335.172(a)(8); 264.280(a)(8) |  |  |  |  |  |
| 1417 | VII.A.*8.b.* | Submit closure certification per 264.115 signed by an independent licensed Geoscientist or PE | 335.172(b); 264.280(b) |  |  |  |  |  |
| 1418 | VII.A.*9.* | Closure of Landfills: plan must ensure that: | 335.174; 264.310 |  |  |  |  |  |
| 1419 | VII.A.*9.a.* | Plans and engineering report that describe the final cover components in detail. Cover installation and construction quality assurance procedures should be thoroughly described | EPA Publication 530-SW-85-014; TCEQ Technical Guidance No. 3 |  |  |  |  |  |
| 1420 | VII.A.*9.b.* | Adequate cover, designed and constructed to: |  |  |  |  |  |  |
| 1421 | VII.A.*9.b.1.* | Provide long-term minimization of migration of liquids through the closed landfill | 335.174(a)(1); 264.310(a)(1) |  |  |  |  |  |
| 1422 | VII.A.*9.b.2.* | Function with minimum maintenance | 335.174(a)(2); 264.310(a)(2) |  |  |  |  |  |
| 1423 | VII.A.*9.b.3.* | Promote drainage and minimize erosion or abrasion of the cover | 335.174(a)(3); 264.310(a)(3) |  |  |  |  |  |
| 1424 | VII.A.*9.b.4.* | Accommodate settling and subsidence without loss of integrity | 335.174(a)(4); 264.310(a)(4) |  |  |  |  |  |
| 1425 | VII.A.*9.b.5.* | Ensure that the permeability is less than or equal to bottom liner or natural subsoils, if unlined | 335.174(a)(5); 264.310(a)(5) |  |  |  |  |  |
| 1426 | VII.A.*9.c.* | For waste left in place, the closure plan must comply with applicable requirements of 30 TAC 350.33 Remedy Standard B | 350.33 Remedy Standard B. |  |  |  |  |  |
| 1427 | VII.A.*10.* | Closure of Incinerators; plan must ensure that: | 264.351 |  |  |  |  |  |
| 1428 | VII.A.*10.a.* | All hazardous wastes and waste residues including ash, scrubber waters and scrubber sludges, and any structures or operating equipment such as pumps and valves, etc. must be removed from the incinerator site | 264.351; 350.32 Remedy Standard A |  |  |  |  |  |
| 1429 | VII.A.*11.* | Closure of Drip Pads; plan must demonstrate that closure will: | 264.575 |  |  |  |  |  |
| 1430 | VII.A.*11.a.* | Remove or decontaminate all waste residues, contaminated containment system components (pads, liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leakage | 264.575(a); 350.32 Remedy Standard A |  |  |  |  |  |
| 1431 | VII.A.*11.b.* | If not all subsoils can be decontaminated, post-closure care must be submitted per 264.310 | 264.575(b); 350.33 Remedy Standard B |  |  |  |  |  |
| 1432 | VII.A.*11.c.* | If unit has no liner system, contingent post-closure plan per 264.118 and cost estimate per 264.142 & 264.144 must be submitted | 264.575(c) |  |  |  |  |  |
| 1433 | VII.A.*12.* | Closure of Miscellaneous Units: | 335.152(a)(5) |  |  |  |  |  |
| 1434 | VII.A.*12.a.* | Closure plan must show that all hazardous waste and hazardous waste residues will be removed and decontaminated from the treatment process or discharge equipment process and discharge equipment structures | 350.32 Remedy Standard A |  |  |  |  |  |
| 1435 | VII.A.*12.b.* | If any wastes, waste residues or contaminated materials or soils will remain after closure, provide plans for closing the miscellaneous unit as a landfill in accordance with 264.310 and 350.33 Remedy Standard B that: | 350.33 Remedy Standard B. |  |  |  |  |  |
| 1436 | VII.A.*12.b.1.* | Minimizes need for further maintenance | 264.111(a) |  |  |  |  |  |
| 1437 | VII.A.*12.b.2.* | Provides protection of human health and the environment, prevents escape of hazardous waste, constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground or surface waters or atmosphere | 264.111(b) |  |  |  |  |  |
| 1438 | VII.A.*12.b.3.* | Complies with any applicable requirements of 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.601-603, and 264.1102 | 264.111(c) |  |  |  |  |  |
| 1439 | VII.A.*13.* | Closure of Containment Buildings: plan must ensure that: | 264.1102 |  |  |  |  |  |
| 1440 | VII.A.*13.a.* | Remove or decontaminate all waste residues, contaminated system components (liners, etc.), contaminated subsoils, structures and equipment. | 264.1102(a); 350.32 Remedy Standard A |  |  |  |  |  |
| 1441 | VII.A.*13.b.* | If not all contaminated subsoils can be removed the operator must close the facility and perform post-closure care in accordance with closure and post-closure requirements that apply to landfills (264.310) and 350.33 Remedy Standard B | 264.1102(b); 350.33 Remedy Standard B. |  |  |  |  |  |
| 1442 | VII.A.*14.* | Closure of Boilers and Industrial Furnaces (BIF): plan must ensure that closure will: | 266.102(a)(2)(vii); 264.112(b) |  |  |  |  |  |
| 1443 | VII.A.*14.a.* | Remove all hazardous wastes, residues (including ash, scrubber waters, scrubber sludges) from the BIF including ductwork, piping, air pollution control equipment, sumps, and any other structures or operating equipment such as pumps, valves, etc. that have come in contact with hazardous wastes | 350.32 Remedy Standard A. |  |  |  |  |  |
| 1444 | VII.B. | **Closure Cost Estimate (including contingent closure)** | TCEQ Technical Guidance No.10; 335.178; 264.142 | NA | NA | NA |  |  |
| 1445 | VII.B.*~.a.* | Provide detailed cost estimate of closing the facility |  |  |  |  |  |  |
| 1446 | VII.B.*~.b.* | Provide cost of closure at the most expensive point in the facilities operating life | 264.142(a)(1) |  |  |  |  |  |
| 1447 | VII.B.1. | If closure costs based on contractor bids; provide a copy of the bid specification and each contractor’s response |  |  |  |  |  |  |
| 1448 | VII.B.2. | Complete and submit Table VII.B - Unit Closure Cost Estimate in hard copy and editable electronic format Closure costs based on detailed analysis: cost of each item, equipment, third party labor and supervision, transportation, and analytical costs, etc. |  |  |  |  |  |  |
| 1449 | VII.B.3. | Provide closure costs based on off-site shipment and disposal, including: | 335.178 |  |  |  |  |  |
| 1450 | VII.B.3.*a.* | Maximum inventory of wastes | 335.178(1) |  |  |  |  |  |
| 1451 | VII.B.3.*b.* | Wastes generated during closure | 335.178(2) |  |  |  |  |  |
| 1452 | VII.B.3.*c.* | Contaminated storm water | 335.178(3) |  |  |  |  |  |
| 1453 | VII.B.3.*d.* | Leachate | 335.178(4) |  |  |  |  |  |
| 1454 | VII.B.4. | Provide cost for closure under contingent closure plan required for each surface impoundments, waste pile or tank system |  |  |  |  |  |  |
| 1455 | VII.C. | **Post-Closure** |  | NA | NA | NA |  |  |
| 1456 | VII.C.*~.* | Post-closure must continue for at least 30 years | 264.117(a)(1) | NA | NA | NA |  |  |
| 1457 | VII.C.1. | Provide the post-closure care plan for land treatment unit, landfill, surface impoundment, waste pile, miscellaneous unit, or tank system closed with wastes or waste constituents left in place or closed under contingent closure plan must identify the activities which will be performed and their frequencies; including the following: | 264.118(b) |  |  |  |  |  |
| 1458 | VII.C.1.*a.* | Monitoring activities and frequency at which they will be performed during post-closure | 264.118(b)(1); 335.172(c); 264.280(c); 335.174(b); 264.310(b); 335.169(b); 264.228(b); 264.258(b); 264.603 |  |  |  |  |  |
| 1459 | VII.C.1.*b.* | Description of the planned maintenance activities and frequencies of performing to ensure: | 264.118(b)(2) |  |  |  |  |  |
| 1460 | VII.C.1.*b.1.* | Integrity of the cap and final cover or containment system | 264.118(b)(2)(i) |  |  |  |  |  |
| 1461 | VII.C.1.*b.2.* | Function of monitoring equipment | 264.118(b)(2)(ii) |  |  |  |  |  |
| 1462 | VII.C.1.*c.* | Maintain final cover | 335.174(b)(1); 264.310(b)(1) |  |  |  |  |  |
| 1463 | VII.C.1.*d.* | Continue to operate leachate collection system | 335.174(b)(2); 264.310(b)(2) |  |  |  |  |  |
| 1464 | VII.C.1.*e.* | Maintain and monitor the leak detection system | 335.174(b)(3); 264.310(b)(3) |  |  |  |  |  |
| 1465 | VII.C.1.*f.* | Maintain and monitor groundwater/soil monitoring system | 335.174(b)(4) |  |  |  |  |  |
| 1466 | VII.C.1.*g.* | Prevent run-on and run-off from eroding or damaging the cover | 335.174(b)(5) |  |  |  |  |  |
| 1467 | VII.C.1.*h.* | Protect and maintain surveyed benchmarks (as applicable) used in complying 264.309 | 335.174(b)(6); 264.310(b)(6) |  |  |  |  |  |
| 1468 | VII.C.1.*i.* | Additional Post-closure for Land Treatment: | 264.280(c) |  |  |  |  |  |
| 1469 | VII.C.1.*i.1.* | During post-closure of land treatment facilities, the owner or operator must comply with the following: |  |  |  |  |  |  |
| 1470 | VII.C.1.*i.1.a.* | Continue all operations (including pH control) | 264.280(c)(1) |  |  |  |  |  |
| 1471 | VII.C.1.*i.1.b.* | Maintain vegetative cover | 264.280(c)(2) |  |  |  |  |  |
| 1472 | VII.C.1.*i.1.c.* | Maintain run-on control system | 264.280(c)(3) |  |  |  |  |  |
| 1473 | VII.C.1.*i.1.d.* | Maintain run-off management system | 264.280(c)(4) |  |  |  |  |  |
| 1474 | VII.C.1.*i.1.e.* | Control wind dispersal of waste; | 264.280(c)(5) |  |  |  |  |  |
| 1475 | VII.C.1.*i.1.f.* | Continue to comply with food-chain crops prohibitions | 264.280(c)(6) |  |  |  |  |  |
| 1476 | VII.C.1.*i.1.g.* | Continue UZM and GW monitoring | 264.280(c)(7) |  |  |  |  |  |
| 1477 | VII.C.1.*j.* | Additional Post-closure for Miscellaneous Units | 270.14(b)(13) |  |  |  |  |  |
| 1478 | VII.C.1.*j.1.* | Must comply with 264.601 during the post-closure care period. The post-closure plan under 264.118 must specify the procedures to satisfy this requirement. (For wastes closed in place, the plan must identify 350.33 Remedy Standard B.) | 264.603 |  |  |  |  |  |
| 1479 | VII.C.2. | Provide name, address, and phone number of the person or office to contact during post-closure period | 264.118(b)(3) |  |  |  |  |  |
| 1480 | VII.C.3. | Submit a discussion of the future use of land associated with each unit |  |  |  |  |  |  |
| 1481 | VII.C.4. | For landfills, surface impoundments, waste piles and land treatment areas closed under interim status, submit the required documentation of the notices under 264.119 | 270.14(b)(14) |  |  |  |  |  |
| 1482 | VII.C.5. | If equivalency determination has not been made for landfills, surface impoundments, waste piles and land treatment areas, submit a copy of the demonstration documentation. Complete Table VII.C.5. - Land-Based Units Closed Under Interim Status for all land based units closed under interim status | 270.1(c)(5-6) |  |  |  |  |  |
| 1483 | VII.D. | **Post-closure cost estimate (except state and federal facilities )** |  | NA | NA | NA |  |  |
| 1484 | VII.D.1.*a.* | Complete and submit Table VII.D. - Unit Post-Closure Cost Estimate in hard copy and editable electronic format |  |  |  |  |  |  |
| 1485 | VII.D.1.*b.* | Provide detailed cost estimate of the annual cost of monitoring and maintenance | TCEQ Technical Guidance No.10 |  |  |  |  |  |
| 1486 | VII.D.2. | Provide post-closure cost estimate, including: |  |  |  |  |  |  |
| 1487 | VII.D.2.*a.* | Assume costs of hiring third parties for all operations | 264.144(a)(1) |  |  |  |  |  |
| 1488 | VII.D.3. | Total annual cost of post-closure care and contingent post-closure care multiplied by 30 years | 264.144(a)(2) |  |  |  |  |  |
| 1489 | VII.E. | **Closure and Post-closure Cost Summary** |  | NA | NA | NA |  |  |
| 1490 | VII.E.*1.* | Complete and submit Table VII.E.1. - Permitted Unit Closure Cost Summary in hard copy and editable electronic format |  |  |  |  |  |  |
| 1491 | VII.E.*2.* | Complete and Submit Table VII.E.2. - Permitted Unit Post-Closure Cost Summary in hard copy and editable electronic format |  |  |  |  |  |  |
| 1492 | VIII. | **Financial Assurance** |  | NA | NA | NA |  |  |
| 1493 | VIII.*~.1.* | Submit copies of the Financial Assurance Information to the Revenue Operation Section, Financial Administration Division, and in the Part B permit application. |  |  |  |  |  |  |
| 1494 | VIII.*~.2.* | Ensure an authorized signatory has signed the financial assurance documents and included the certification statement | 305.44 |  |  |  |  |  |
| 1495 | VIII.A. | **Financial Assurance Information Requirements for all Applicants:** | 335.179 | NA | NA | NA |  |  |
| 1496 | VIII.A.*~.* | Provide statement to demonstrate that the applicant has sufficient financial resources to operate and close the facility; and information concerning how they intend to obtain financing for construction | 305.50(a)(4) |  |  |  |  |  |
| 1497 | VIII.A.1. | FINANCIAL ASSURANCE FOR CLOSURE | 30 TAC Chapter 37 Subchapter P; 264.143 | NA | NA | NA |  |  |
| 1498 | VIII.A.1.*a.* | Submit any of the following financial assurance mechanisms: |  |  |  |  |  |  |
| 1499 | VIII.A.1.*a.1.* | Closure trust fund | 37.6021(b)(1); 264.143(a) |  |  |  |  |  |
| 1500 | VIII.A.1.*a.2.* | Surety bond guaranteeing payment into closure trust fund | 37.6021(b)(2); 264.143(b) |  |  |  |  |  |
| 1501 | VIII.A.1.*a.3.* | Surety bond guaranteeing performance of closure | 37.6021(b)(3); 264.143(c) |  |  |  |  |  |
| 1502 | VIII.A.1.*a.4.* | Irrevocable letter of credit | 37.6021(b)(4); 264.143(d) |  |  |  |  |  |
| 1503 | VIII.A.1.*a.5.* | Closure insurance | 37.6021(b)(5); 264.143(e) |  |  |  |  |  |
| 1504 | VIII.A.1.*a.6.* | Financial test and corporate guarantee for closure | 37.6021(b)(6-7); 264.143(f) |  |  |  |  |  |
| 1505 | VIII.A.1.*a.7.* | Use of multiple financial mechanisms | 264.143(g) |  |  |  |  |  |
| 1506 | VIII.A.1.*a.8.* | Use of financial mechanism for multiple facilities | 37.51 264.143(h) |  |  |  |  |  |
| 1507 | VIII.A.2. | FINANCIAL ASSURANCE FOR POST-CLOSURE CARE | 30 TAC Chapter 37 Subchapter P; 264.145 | NA | NA | NA |  |  |
| 1508 | VIII.A.2.*a.* | Submit any of the following financial assurance mechanisms: |  |  |  |  |  |  |
| 1509 | VIII.A.2.*a.1.* | Post-closure trust fund | 37.6021(b)(1); 264.145(a) |  |  |  |  |  |
| 1510 | VIII.A.2.a.2. | Surety bond guaranteeing payment into post-closure fund | 37.6021(b)(2); 264.145(b) |  |  |  |  |  |
| 1511 | VIII.A.2.*a.3.* | Surety bond guaranteeing performance of post-closure care | 37.6021(b)(3); 264.145(c) |  |  |  |  |  |
| 1512 | VIII.A.2.*a.4.* | Post-closure letter of credit | 37.6021(b)(4); 264.145(d) |  |  |  |  |  |
| 1513 | VIII.A.2.*a.5.* | Post-closure insurance | 37.6021(b)(5); 264.145(e) |  |  |  |  |  |
| 1514 | VIII.A.2.*a.6.* | Financial test and corporate guarantee for post-closure | 37.6021(b)(6-7); 264.145(f) |  |  |  |  |  |
| 1515 | VIII.A.2.*a.7.* | Use of multiple financial mechanisms | 264.145(g) |  |  |  |  |  |
| 1516 | VIII.A.2.*a.8.* | Use of financial mechanism for multiple facilities | 37.51; 264.145(h) |  |  |  |  |  |
| 1517 | VIII.A.3. | FINANCIAL ASSURANCE FOR CORRECTIVE ACTION | 30 TAC Chapter 37 Subchapter P | NA | NA | NA |  |  |
| 1518 | VIII.A.3.*a.* | Submit any of the following financial assurance mechanisms: |  |  |  |  |  |  |
| 1519 | VIII.A.3.*a.1.* | Corrective action trust fund | 37.6021(b)(1) |  |  |  |  |  |
| 1520 | VIII.A.3.*a.2.* | Surety bond guaranteeing payment into corrective action fund | 37.6021(b)(2) |  |  |  |  |  |
| 1521 | VIII.A.3.*a.3.* | Corrective action letter of credit | 37.6021(b)(4) |  |  |  |  |  |
| 1522 | VIII.A.3.*a.4.* | Corrective action insurance; | 37.6021(b)(5) |  |  |  |  |  |
| 1523 | VIII.A.3.*a.5.* | Financial test and corporate guarantee for corrective action | 37.6021(b)(6-7) |  |  |  |  |  |
| 1524 | VIII.A.3.*a.6.* | Use of financial mechanism of for multiple facilities | 37.51 |  |  |  |  |  |
| 1525 | VIII.A.4. | LIABILITY REQUIREMENTS: (Not required for post-closure care) if applicable: | 30 TAC Chapter 37 Subchapter P; 264.147 | NA | NA | NA |  |  |
| 1526 | VIII.A.4.*a.* | Coverage for sudden accidental occurrences (required) | 37.6031(b); 264.147(a) |  |  |  |  |  |
| 1527 | VIII.A.4.*b.* | Coverage for non-sudden accidental occurrences (required of land-based units) | 37.6031(c); 264.147(b) |  |  |  |  |  |
| 1528 | VIII.A.4.*c.* | Requests for variance | 264.147(c) |  |  |  |  |  |
| 1529 | VIII.A.4.*d.* | Adjustments by the Regional Administrator | 37.411; 264.147(d) |  |  |  |  |  |
| 1530 | VIII.A.4.*e.* | Period of coverage | 264.147(e) |  |  |  |  |  |
| 1531 | VIII.A.4.*f.* | Financial test | 37.541; 264.147(f) |  |  |  |  |  |
| 1532 | VIII.A.4.*g.* | Guarantee for liability coverage | 37.551; 264.147(g) |  |  |  |  |  |
| 1533 | VIII.A.4.*h.* | Letter of credit | 37.521; 264.147(h) |  |  |  |  |  |
| 1534 | VIII.A.4.*i.* | Surety bond | 37.511; 264.147(i) |  |  |  |  |  |
| 1535 | VIII.A.4.*j.* | Trust fund | 37.501; 264.147(j) |  |  |  |  |  |
| 1536 | VIII.A.4.*k.* | Endorsement or Certification: Submit the original Hazardous Waste Facility Endorsement wording pursuant to 264.151(i)(3), or Certificate of Liability wording pursuant to 264.151(j)(4) | 30 TAC Chapter 37 Subchapter D; 264.147(k) |  |  |  |  |  |
| 1537 | VIII.B. | **Applicant Financial Disclosure Statements for a new permit, permit amendment, permit modification, or permit renewal** | 305.50(a)(4) | NA | NA | NA |  |  |
| 1538 | VIII.B.*~.* | Refer to the “Supplemental Technical Information Applications Subject to Financial Capabilities Requirements” included in the Part B Application Section VIII.B. |  | NA | NA | NA |  |  |
| 1539 | VIII.B.1. | Provide the information required by 30 TAC 305.50(a)(4) |  |  |  |  |  |  |
| 1540 | VIII.B.2. | Complete and submit Table VIII.B. - Estimated Capital Cost in hard copy and electronically (editable) as represented (Applicable only if facility is requesting capacity expansion, or new construction) |  |  |  |  |  |  |
| 1541 | VIII.B.3. | For a new commercial hazardous waste management facility, submit a written statement signed by an authorized signatory explaining how the applicant intends to provide emergency response financial assurance | 305.44; 305.50(a)(12)(C) or (D) |  |  |  |  |  |
| 1542 | VIII.B.4. | For renewal application with no capacity expansion, complete and submit the Financial Disclosure Letter |  |  |  |  |  |  |
| 1543 | IX. | **Releases from Solid Waste Management Units and Corrective Action** |  | NA | NA | NA |  |  |
| 1544 | IX.*~.* | Provide status of Corrective Action |  |  |  |  |  |  |
| 1545 | IX.A. | **Complete applicable sections of Preliminary Review Facility Checklist** | 335.166-167 |  |  |  |  |  |
| 1546 | IX.B. | **Provide Appendices to Preliminary Review:** |  |  |  |  |  |  |
| 1547 | IX.B.*1.* | Appendix I , Facility and SWMU location maps: |  |  |  |  |  |  |
| 1548 | IX.B.*1.a.* | Regional location map |  |  |  |  |  |  |
| 1549 | IX.B.*1.b.* | Site location map |  |  |  |  |  |  |
| 1550 | IX.B.*2.* | Appendix II, Wastes Managed: |  |  |  |  |  |  |
| 1551 | IX.B.*2.a.* | List of wastes managed |  |  |  |  |  |  |
| 1552 | IX.B.*2.b.* | 40 CFR 261, Appendix VIII hazardous constituents |  |  |  |  |  |  |
| 1553 | IX.B.*2.c.* | 40 CFR 261, Appendix IX hazardous constituents |  |  |  |  |  |  |
| 1554 | IX.B.*3.* | Appendix III, Evidence of Release: |  |  |  |  |  |  |
| 1555 | IX.B.*3.a.* | Documentation of release |  |  |  |  |  |  |
| 1556 | IX.B.*3.b.* | Map of release locations, SWMU identification and paths traveled |  |  |  |  |  |  |
| 1557 | IX.B.*4.* | Appendix IV, Pollutant Dispersal Pathways: |  |  |  |  |  |  |
| 1558 | IX.B.*4.a.* | Facility, local and regional map identifying eventual pathways of release from unit |  |  |  |  |  |  |
| 1559 | IX.B.*4.b.* | Facility cross-section, vertical pathways and lateral movements in groundwater |  |  |  |  |  |  |
| 1560 | IX.*C.* | **Preliminary review submittal format. Ensure Preliminary review is bound with a cover page and contains a Table of Contents, etc.** |  |  |  |  |  |  |
| 1561 | X. | **Air Emissions Standards** |  | NA | NA | NA |  |  |
| 1562 | X.A. | **Provide a report on Process Vents, if applicable:** | 335.152(a)(17); 264 subpart AA; 270.24 |  |  |  |  |  |
| 1563 | X.A.1. | Complete and submit Table X.A. - Process Vents in hard copy and editable electronic format |  |  |  |  |  |  |
| 1564 | X.A.2. | Submit the certification for organic emissions, signed and dated |  |  |  |  |  |  |
| 1565 | X.B. | **Provide a report on Equipment Leaks, if applicable:** | 335.152(a)(18); 264 subpart BB; 270.25 |  |  |  |  |  |
| 1566 | X.B.1. | Complete and submit Table X.B. - Equipment Leaks in hard copy and editable electronic format |  |  |  |  |  |  |
| 1567 | X.B.2. | Submit the certification for equipment, signed and dated |  |  |  |  |  |  |
| 1568 | X.C. | **Provide a report on Tanks, Surface Impoundments and Containers, if applicable:** | 335.152(a)(19); 264 subpart CC; 270.27 |  |  |  |  |  |
| 1569 | X.C.1. | Complete and submit Table X.C. - Tanks, Surface Impoundments, and Containers Subject to Air Emission Controls in hard copy and editable electronic format |  |  |  |  |  |  |
| 1570 | X.C.2. | Complete submit the Floating Roof Cover certification, signed and dated, for Tanks |  |  |  |  |  |  |
| 1571 | X.C.3. | Complete and submit the Floating Membrane Cover certification, signed and dated, for Surface Impoundments |  |  |  |  |  |  |
| 1572 | X.C.4. | Complete and submit the Container certification, signed and dated |  |  |  |  |  |  |
| 1573 | X.C.5. | Complete and submit the Control Device certification, signed and dated |  |  |  |  |  |  |
| 1574 | X.D. | **For "One-Stop" Permits only, Provide TCEQ Office of Air Quality information:** |  |  |  |  |  |  |
| 1575 | X.D.1. | Area map to scale |  |  |  |  |  |  |
| 1576 | X.D.2. | Plot plan to scale |  |  |  |  |  |  |
| 1577 | X.D.3. | Complete and submit Table X.D.1(a). - Emission Point Parameters in hard copy and editable electronic format |  |  |  |  |  |  |
| 1578 | X.D.4. | Process description, operating schedule and flow chart |  |  |  |  |  |  |
| 1579 | X.D.5. | Design specifications using OAQ table |  |  |  |  |  |  |
| 1580 | X.D.6. | VOC concentrations in water, sludge, or soil |  |  |  |  |  |  |
| 1581 | X.D.7. | Exhaust stack or emission point parameters |  |  |  |  |  |  |
| 1582 | X.D.8. | BACT documentation for new or modified facilities |  |  |  |  |  |  |
| 1583 | X.D.9. | Documentation of compliance with NSPS and NESHAPS |  |  |  |  |  |  |
| 1584 | X.D.10. | Documentation as to whether a permit is required for new source review by Part C or D of Title I of Clean Air Act |  |  |  |  |  |  |
| 1585 | X.D.11. | Demonstration of emission control reliability |  |  |  |  |  |  |
| 1586 | X.D.12. | Results of atmospheric dispersion modeling |  |  |  |  |  |  |
| 1587 | X.D.13. | Complete and submit Table X.D.7. - For Fugitive Sources for storage tanks in hard copy and editable electronic format |  |  |  |  |  |  |
| 1588 | X.D.14. | Statement addressing OAQ regulations |  |  |  |  |  |  |
| 1589 | X.D.15. | All methods of calculating emissions referenced or justified |  |  |  |  |  |  |
| 1590 | XI. | **Compliance Plan** |  | NA | NA | NA |  |  |
| 1591 | XI.*~.* | If a compliance plan is required, please refer to/use the compliance plan checklist |  | NA | NA | NA |  |  |
| 1592 | XII.*~.~.* | **Hazardous Waste Permit Application Fee** |  | NA | NA | NA |  |  |
| 1593 | XII.*~.1.* | Complete and submit Table XII.A. - Hazardous Waste Units (for application fee calculations) and Table XII.B. - Hazardous Waste Application Fee Worksheet in hard copy and editable electronic format |  |  |  |  |  |  |
| 1594 | XII.A. | **Minimum permit application fee for new permit or renewal is $2,000. Calculate the maximum according to the following:** | 305.53(a)(1) |  |  |  |  |  |
| 1595 | XII.A.1. | Process analysis fee: $1,000 | 305.53(a)(2)(B) |  |  |  |  |  |
| 1596 | XII.A.2. | Management/Facility Analysis: $500 | 305.53(a)(2)(D) |  |  |  |  |  |
| 1597 | XII.A.3. | Facility Unit Analysis: $500 per unit: | 305.53(a)(2)(C) |  |  |  |  |  |
| 1598 | XII.A.3.a. | Each non-identical cell of landfill: $500 | 305.53(a)(3) |  |  |  |  |  |
| 1599 | XII.A.3.b. | Each non-identical CSA or tank: $500 | 305.53(a)(3) |  |  |  |  |  |
| 1600 | XII.A.3.c. | Identical is defined as: made of same material & design; capacity within + 10%; stores the same waste; and have same storage management characteristics | 305.53(a)(3) |  |  |  |  |  |
| 1601 | XII.A.4. | Site evaluation fee of $100 per acre (maximum of 300 acres) | 305.53(a)(2)(A) |  |  |  |  |  |
| 1602 | XII.A.5.*a.* | Initial application fee for notice: $50 | 305.53(b) |  |  |  |  |  |
| 1603 | XII.A.5.*b.* | Renewal notice fee: $15 | 305.53(b) |  |  |  |  |  |
| 1604 | XII.B. | **Calculate the application fee for major amendment, Class 2 or Class 3 permit modification for operation, closure, or post-closure, according to the following:** |  |  |  |  |  |  |
| 1605 | XII.B.1. | Management fee: $500 |  |  |  |  |  |  |
| 1606 | XII.B.2. | Notice fee: $50 |  |  |  |  |  |  |
| 1607 | XII.B.3. | Unit added or unit area expanded: $100 per acre up to 300 acres |  |  |  |  |  |  |
| 1608 | XII.B.4. | $1000 process analysis fee if one or more of the following are added or revised: |  |  |  |  |  |  |
| 1609 | XII.B.4.a. | Waste analysis plan |  |  |  |  |  |  |
| 1610 | XII.B.4.b. | Site-specific or regional geology report |  |  |  |  |  |  |
| 1611 | XII.B.4.c. | Site-specific or regional hydrogeologic report |  |  |  |  |  |  |
| 1612 | XII.B.4.d. | Groundwater/unsaturated zone monitoring report |  |  |  |  |  |  |
| 1613 | XII.B.4.e. | Closure/Post-Closure Plan |  |  |  |  |  |  |
| 1614 | XII.B.4.f. | RFI or corrective action reports |  |  |  |  |  |  |
| 1615 | XII.B.5. | $500 unit analysis fee if any of the following are requested: |  |  |  |  |  |  |
| 1616 | XII.B.5.a. | Unit is added |  |  |  |  |  |  |
| 1617 | XII.B.5.b. | Design change to an existing unit |  |  |  |  |  |  |
| 1618 | XII.B.5.c. | Unit status change from closure to post-closure care |  |  |  |  |  |  |
| 1619 | XII.C. | **For a minor amendment, Class 1 or Class 1-1 permit modification, provide: $100 plus a $50 notice fee** |  |  |  |  |  |  |
| 1620 | XIII. | **Confidential Materials** |  | NA | NA | NA |  |  |
| 1621 | XIII.*A.* | **If any confidential information given in Sections I through X of the application, place information in a separate collective document labeled “CONFIDENTIAL”** |  |  |  |  |  |  |

End of table.