



WIPP/NMED Meeting

Electronic Data Management & Acceptable Knowledge Process

Sante Fe, NM
October 11, 2001
9:30-11:30am

Electronic Data Management

Overall Objective—determine status and further actions/discussions that are needed for electronic data management proposal.

- Discussion/comments on last week's demonstrations.
- Remaining questions, concerns, issues on benefits of the system.
- Action items?

Acceptable Knowledge and Confirmation Activities in HWFP

Overall Objective—discuss and develop objectives, path forward, and action plans.

- Proposed regulatory basis/logic “point of view”:
“In order to remove headspace gas and solids sampling and analysis as confirmation steps from the HWFP, the generator/storage sites must comply with the classification requirement of 40CFR262.11 and the chemical analysis requirements of 40CFR264.13. There are no additional needs for chemical test information to manage the waste safely, i.e. 40CFR264.601, if acceptable monitoring is provided.”
- Objective
“The generator/storage site’s environmental compliance program establishes the framework for testing and ^{conducting} sampling/analysis to assure the results are compliant.”
- Brief review of hazardous waste regulatory process diagram.

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- **Potential interactions with generator/storage sites:**
 - **Conduct case study of actual mixed TRU waste stream.**
 - **Identify general categories of information needed for AK Record to demonstrate compliance with RCRA requirements.**
 - **Discuss specific information needs with generator/storage sites (two-way communication).**
 - **Communicate to generator/storage sites proposed/anticipated improvements and changes in permit mod request.**
 - **Select certain generator/storage sites to review their environmental compliance program in meeting RCRA determination and characterization requirements for mixed TRU waste.**
- **WIPP/NMED interactive working meetings should have target objectives, understood path forward and action plans, and a defined finish-line to let us (WIPP & NMED) know when we have successfully achieved our objectives.**
- **Understood assumption – NMED cannot officially “agree” or give the perception that they have entered into a “predecisional” agreement on permit modification request items.**
- **Future meetings.**

12/11/01

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40 CFR 262.11 Hazardous Waste Determination

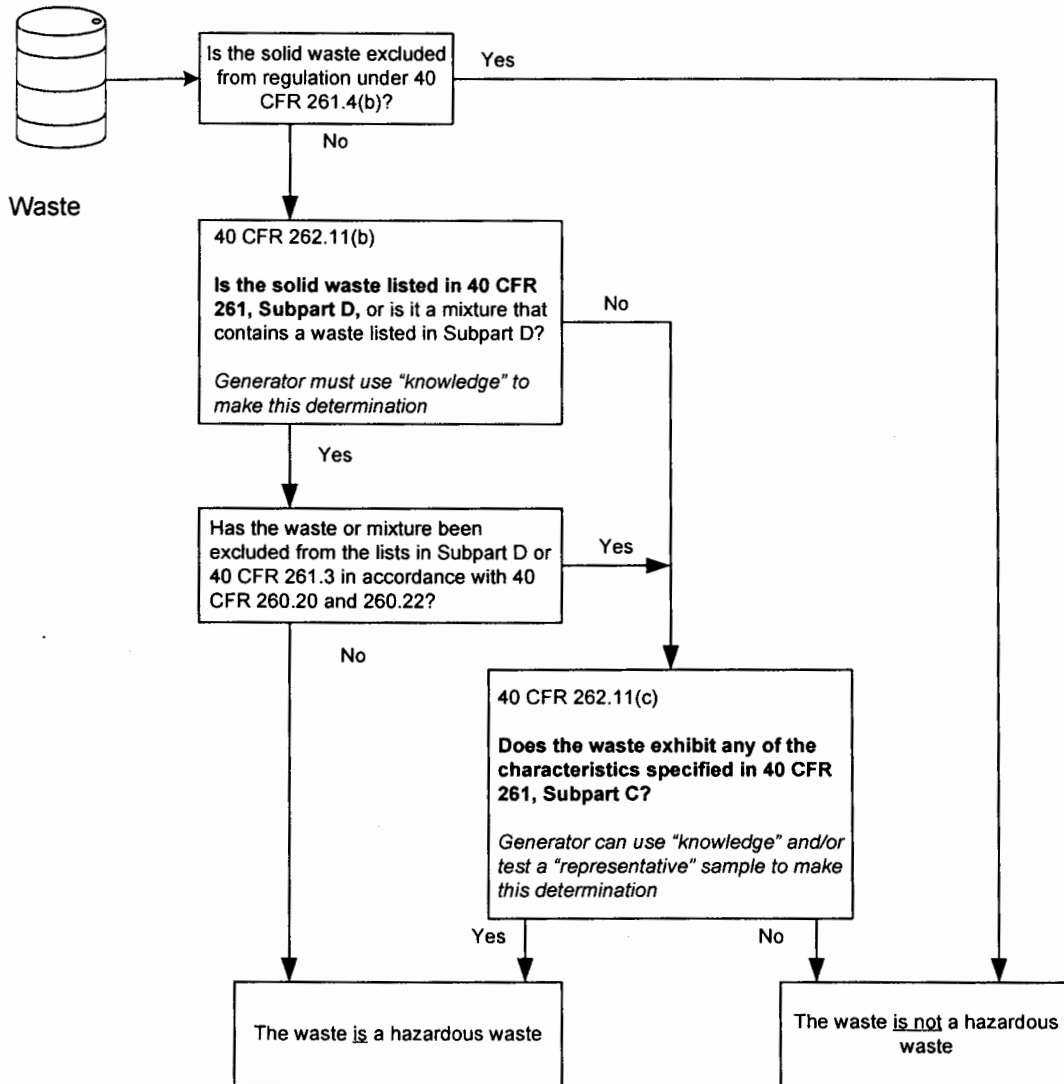
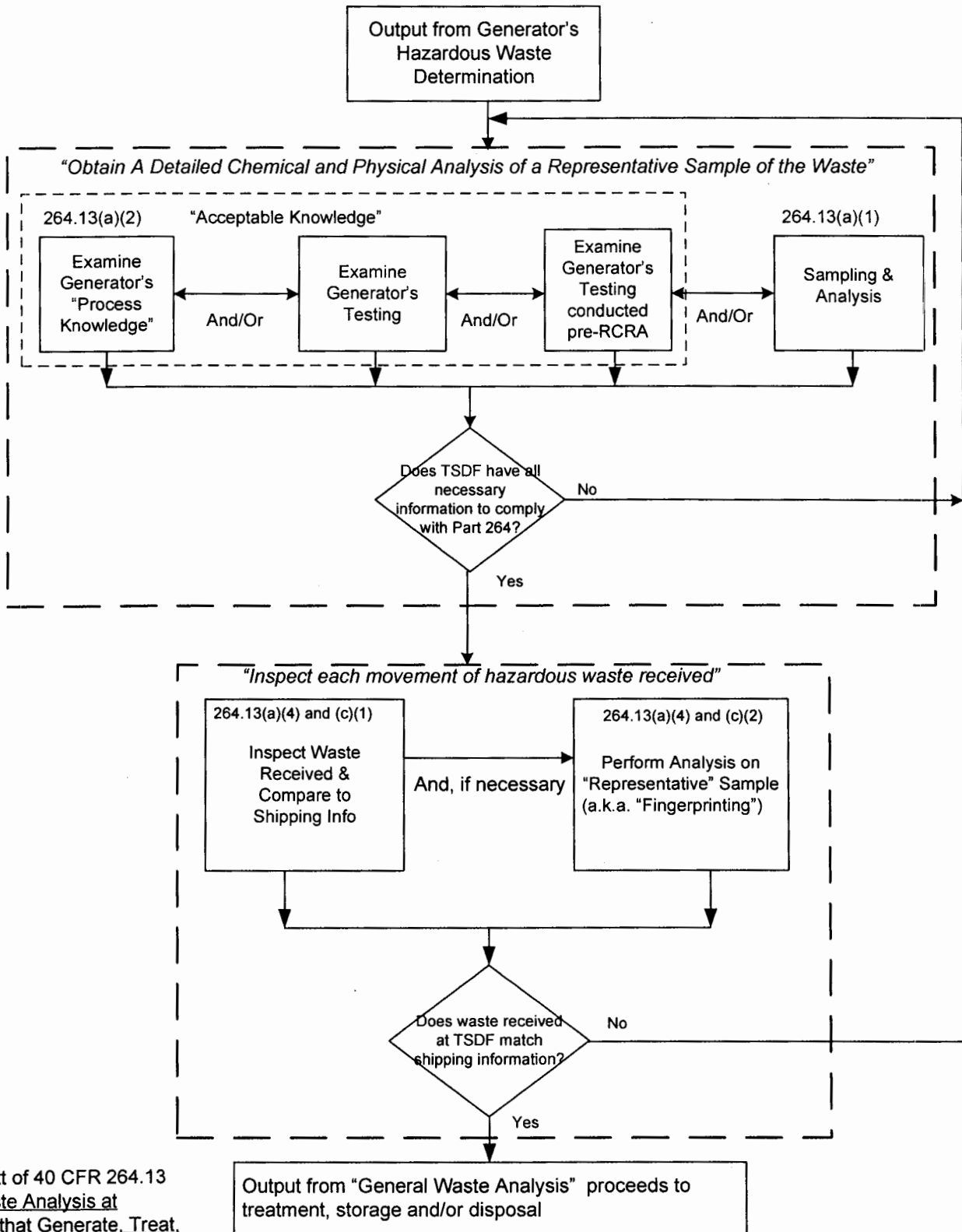


Figure 1. Summary of 40 CFR 262.11

From 40 CFR 260, Appendix I,
Figure 2 Flowchart

40 CFR 264.13 General Waste Analysis



From Text of 40 CFR 264.13 and "Waste Analysis at Facilities that Generate, Treat, Store and Dispose of Hazardous Waste: A Guidance Manual", EPA, 1994

Figure 2. Summary of 40 CFR 264.13

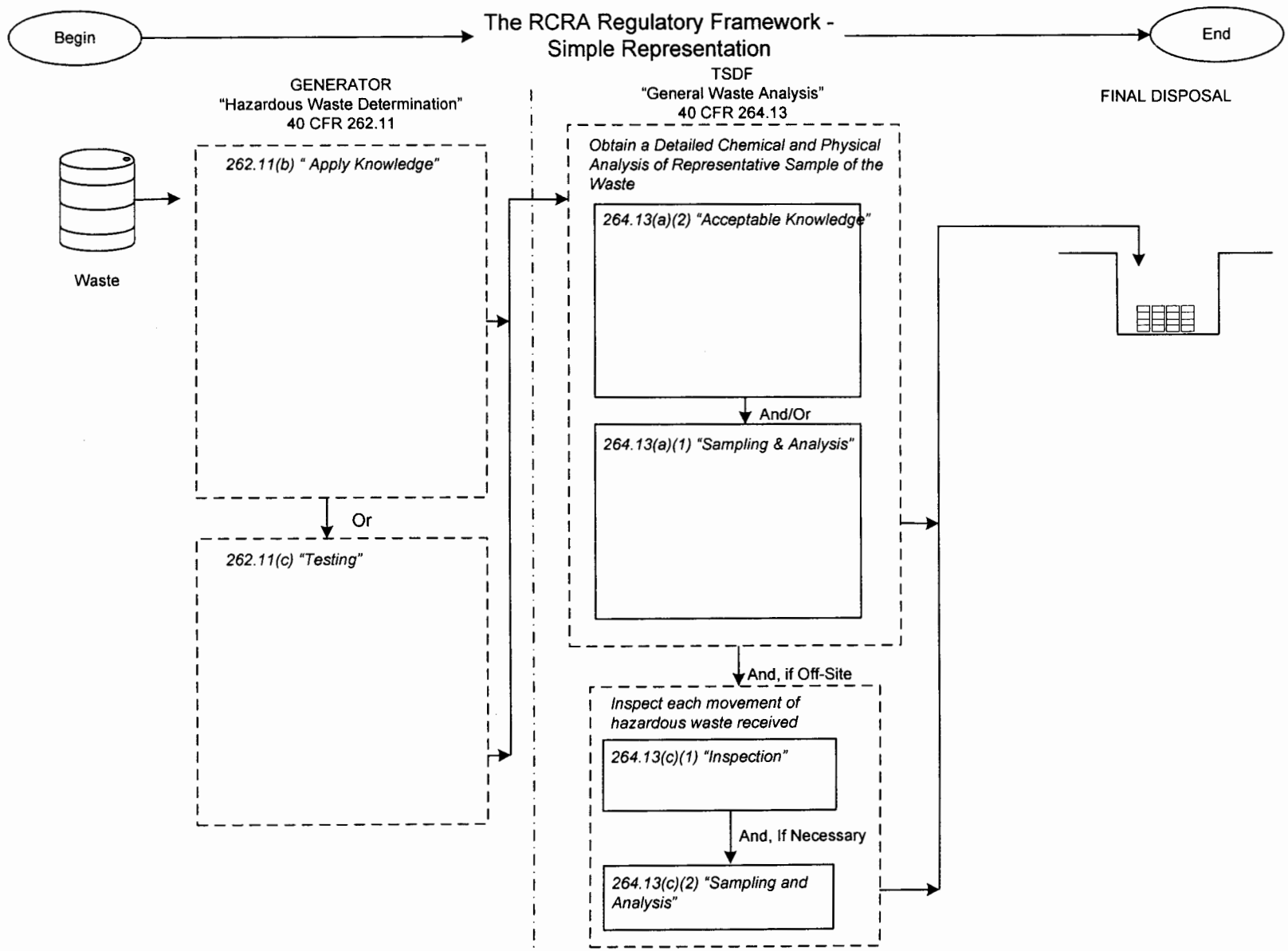


Figure 3. The RCRA Regulatory Framework - Simple Representation

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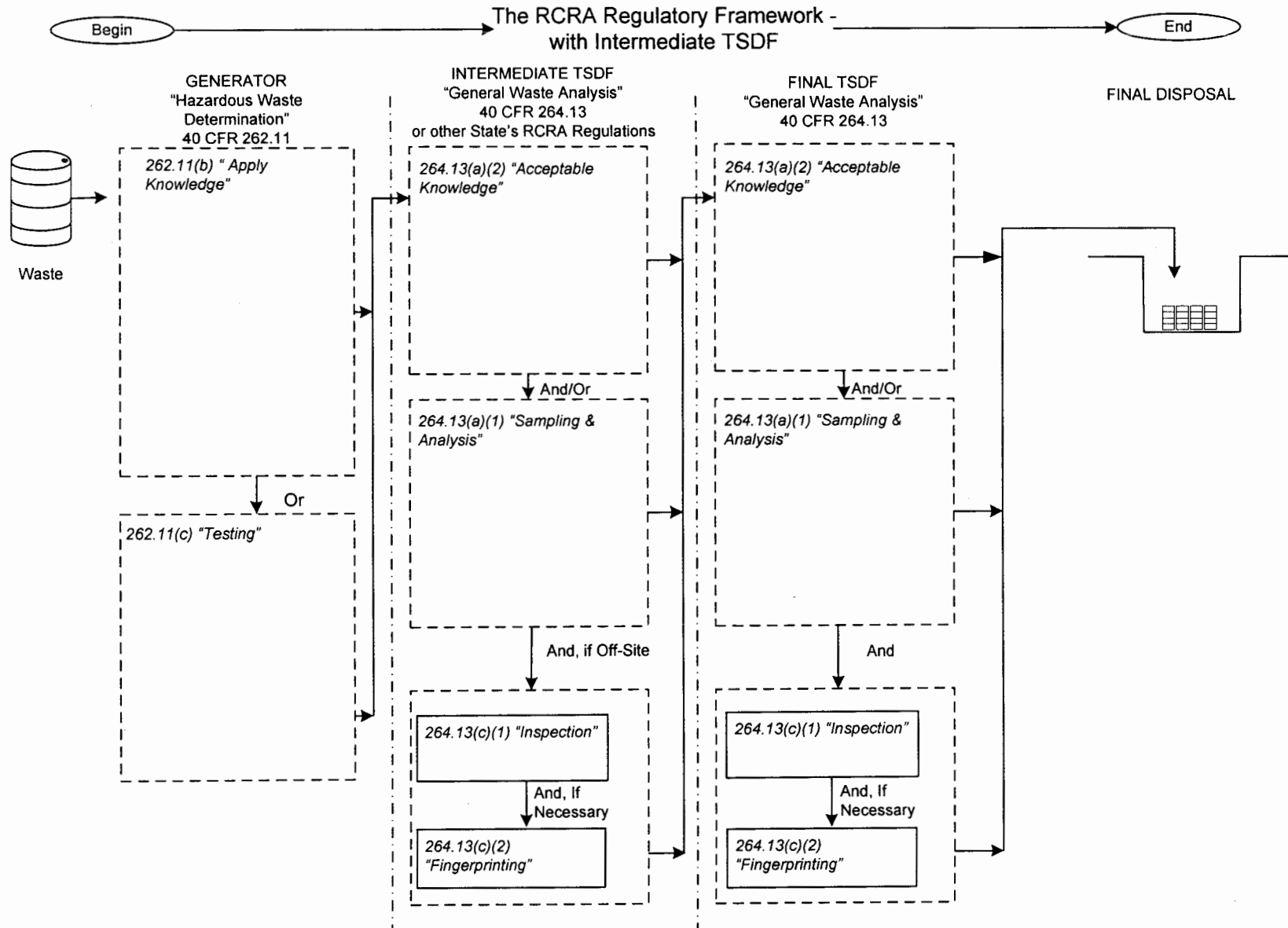


Figure 4. The RCRA Regulatory Framework - with Intermediate TSDF

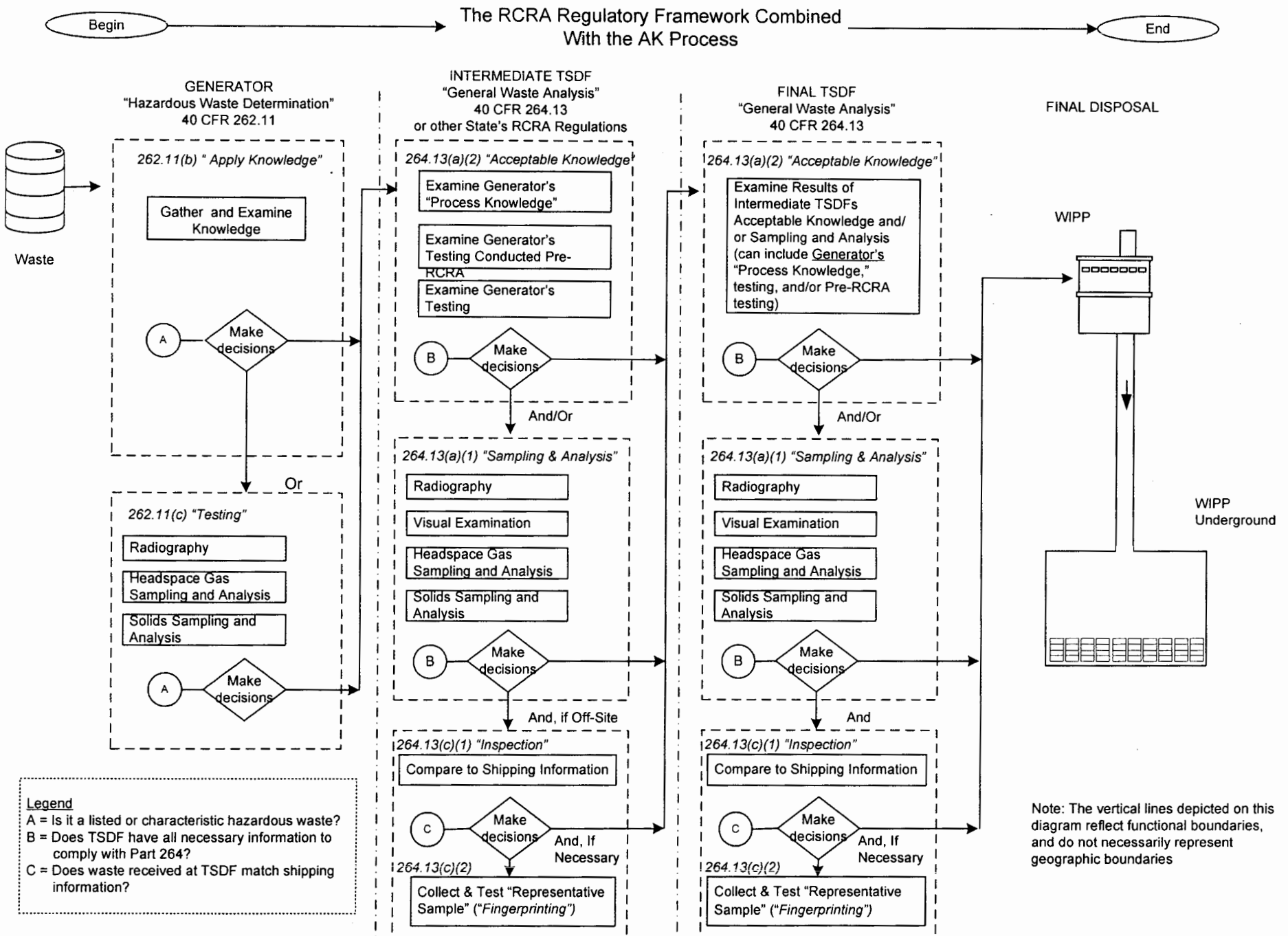
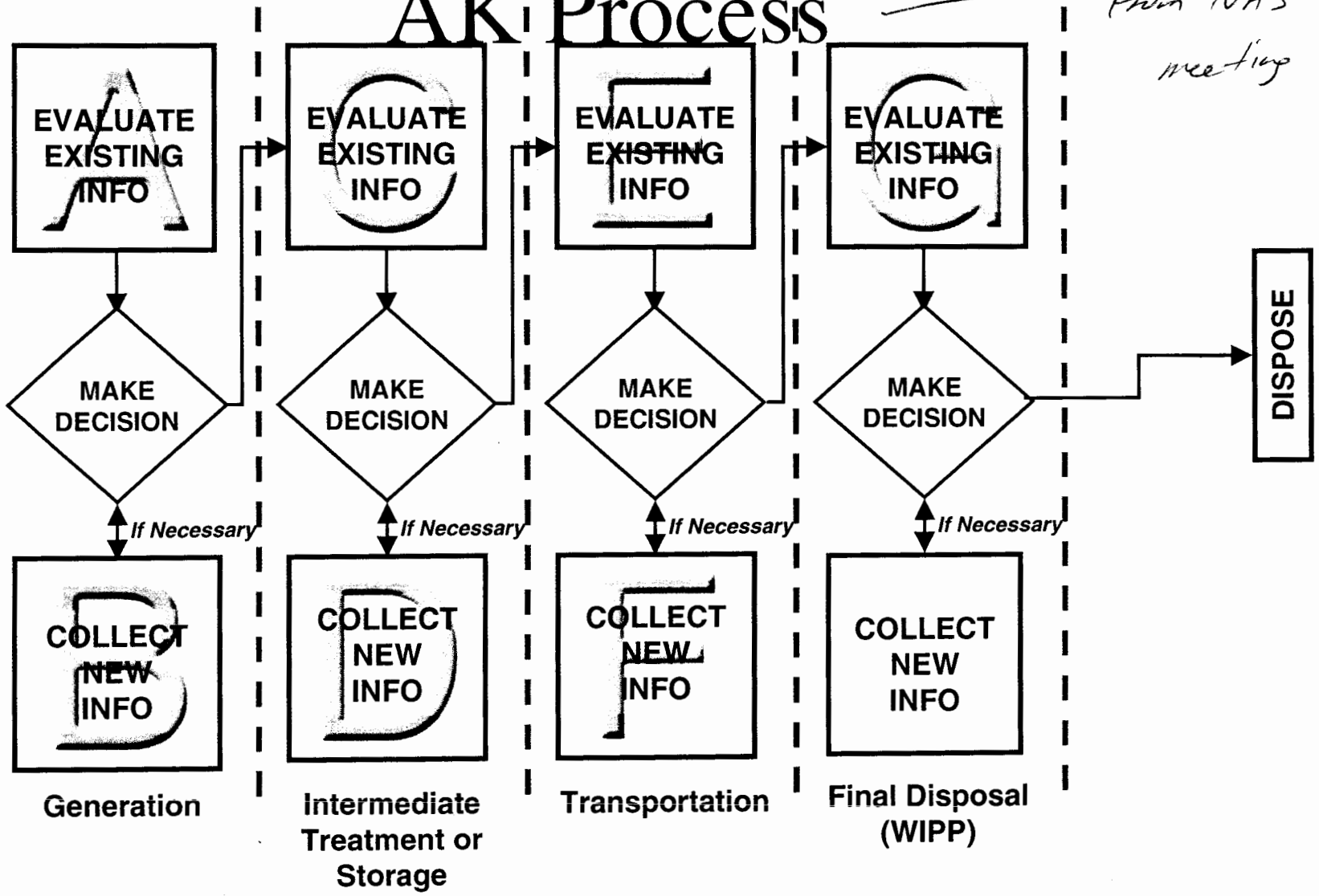


Figure 5. The RCRA Regulatory Framework Combined With the AK Process

Generalized Schematic of the

AK Process

From NAS RH meeting



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AK Process Technique	Data Quality Objective in current HWFP	Data Quality Objective to be Proposed
Acceptable Knowledge		
Examination of Generator's Process Knowledge	DQOs only addressed implicitly in the HWFP	Physical form (waste matrix code)
		Hazardous waste codes
		Identify VOCs
Examination of Generator's Pre-RCRA Testing		Physical form (waste matrix code)
		Hazardous waste codes
		Identify VOCs
Examination of Generator's Testing		Physical form (waste matrix code)
		Hazardous waste codes
		Identify VOCs
Examination of Intermediate TSDF's Acceptable Knowledge		Prohibited items
		Physical form (waste matrix code)
		Hazardous waste codes
		Identify VOCs
Examination of Intermediate TSDF's Sampling and Analysis		Prohibited items
		Identify VOCs
Sampling and Analysis		
Radiography	Physical form	Physical form
	Prohibited items	Prohibited items
	Waste stream delineation	Waste stream delineation
Visual Examination	Physical form	Physical form
	Prohibited items	Prohibited items
	QC radiography	QC radiography
Headspace Gas Sampling and Analysis	Identify VOCs	Proposed elimination from HWFP
	Concentration of VOCs	
	Confirm hazardous waste codes	
Solid Sampling and Analysis	Concentration of constituents	
	Confirm hazardous waste codes	

AK Process Technique	Waste Analysis Information Provided by the Technique	Portion of RCRA Regulatory Framework Satisfied by Technique
ACCEPTABLE KNOWLEDGE		
Examination of Generator's Process Knowledge	<ul style="list-style-type: none"> - hazardous waste codes - waste form (matrix code) - chemical components of waste 	<ul style="list-style-type: none"> - generator's (40 CFR 262.11) - intermediate TSDF's (40 CFR 264.13) - WIPP's HWFP
Examination of Generator's Pre-RCRA Testing	<ul style="list-style-type: none"> - hazardous waste codes - waste form (matrix code) - chemical components of waste 	<ul style="list-style-type: none"> - generator's (40 CFR 262.11) - intermediate TSDF's (40 CFR 264.13) - WIPP's HWFP
Examination of Generator's Testing	<ul style="list-style-type: none"> - hazardous waste codes - waste form (matrix code) - chemical components of waste 	<ul style="list-style-type: none"> - generator's (40 CFR 262.11) - intermediate TSDF's (40 CFR 264.13) - WIPP's HWFP
Examination of Intermediate TSDF's Acceptable Knowledge	<ul style="list-style-type: none"> In addition to the above - absence of items prohibited by TSDF permit (e.g. incompatible waste) 	<ul style="list-style-type: none"> - intermediate TSDF's (40 CFR 264.13) - WIPP's HWFP
Examination of Intermediate TSDF's Sampling and Analysis	<ul style="list-style-type: none"> - absence of items prohibited by TSDF permit (e.g. incompatible waste) - additional chemical information 	<ul style="list-style-type: none"> - intermediate TSDF's (40 CFR 264.13) - WIPP's HWFP
SAMPLING AND ANALYSIS		
Radiography	<ul style="list-style-type: none"> - some characteristic hazardous waste codes (e.g. lead shielding, batteries, etc.) - presence/absence of prohibited items (e.g. aerosol cans, free liquids, etc.) - waste form (matrix code) - MPWs - confirmation of AK Information decisions 	<ul style="list-style-type: none"> - generator's (40 CFR 262.11) - intermediate TSDF's (40 CFR 264.13) - WIPP's HWFP
Visual Examination	<ul style="list-style-type: none"> - some characteristic hazardous waste codes (e.g. lead shielding, light ballasts, batteries) - presence/absence of prohibited items (e.g. aerosol cans, free liquids, etc.) - waste form (matrix code) - MPWs - confirmation of AK Information decisions 	<ul style="list-style-type: none"> - generator's (40 CFR 262.11) - intermediate TSDF's (40 CFR 264.13) - WIPP's HWFP
Headspace Gas Sampling and Analysis	<ul style="list-style-type: none"> - type and concentration of VOCs in headspace gas - presence of some 40 CFR Part 261, Appendix VIII constituents in waste - confirmation of AK Information decisions 	<ul style="list-style-type: none"> - generator's (40 CFR 262.11) - intermediate TSDF's (40 CFR 264.13) - WIPP's HWFP
Solid Sampling and Analysis	<ul style="list-style-type: none"> - concentration of 40 CFR Part 261, Subpart C, characteristic constituents (RCRA metals, VOCs, SVOCs) - concentration of PCBs - confirmation of AK Information decisions 	<ul style="list-style-type: none"> - generator's (40 CFR 262.11) - intermediate TSDF's (40 CFR 264.13) - WIPP's HWFP
CORROBORATION		
Comparison of Received Waste to Shipping Information	<ul style="list-style-type: none"> - confirmation of AK Information decisions - confirmation of sampling and analysis decisions 	<ul style="list-style-type: none"> - intermediate TSDF's (40 CFR 264.13) - WIPP's HWFP
Sampling and Analysis (a.k.a. Fingerprinting)	<ul style="list-style-type: none"> - confirmation of AK Information decisions - confirmation of sampling and analysis decisions 	<ul style="list-style-type: none"> - intermediate TSDF's (40 CFR 264.13)
WIPP HWFP - Audit and Surveillance Program	<ul style="list-style-type: none"> - confirmation that all elements of the AK Process are performed appropriately 	<ul style="list-style-type: none"> - WIPP's HWFP