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Operational Efficiencies Permit Mod

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Discussion Points

(9/4/01)

	<u>Description</u>	<u>How to Address</u>	<u>Status</u>	<u>Comments</u>
	<u>AK/Characterization</u>			
1.	NMED has a concern about adequacy of generator's current AK process (within context of current permit) without confirmation by chemical testing.	Discuss with NMED: <ul style="list-style-type: none"> - regulations and guidance related to AK - Rigor of AK process in permit - AK scorecard - feasible options 	In process. AK discussion with NMED will take place Sept. 6.	NMED sees this issue as a significant concern related to the OE mods.
	<u>WAP</u>			
1.	Multiple proposed WAPs (CCF, OE, RH) may cause confusion with NMED and, more likely, the public.	Compare OE and RH WAPs to determine if differences may be problematic or whether it should be of no concern.	Need management decision on how to proceed.	NMED mentioned that CCF Mod proposes confirmation at a different location but that OE proposes to <u>eliminate</u> some confirmation steps. They have heard that RH will be different. NMED said this will be confusing to public groups and that WIPP should explain this to the public groups that will submit comments on permit mod request.
	<u>Data Management (specific)</u>			
1.	NMED has no experience or precedence with electronic data management systems. Review of mod will require steep learning curve for NMED. NMED suggested finding comparable systems at other sites which were approved by EPA or state agency.	<ul style="list-style-type: none"> - Will provide NMED with live computer demonstration of the system. - Contact other Sites to determine how regulators "approve" in other States. 	Will schedule after Canberra completes work. Contacted 3 sites in 3 states, no regulatory agency approvals are required.	
2.	Need to determine under what classification (2 or 3) we will submit this mod.	Consider that for Class 2 no dialogue can take place with NMED (no NOD process). Can be upgraded to Class 3 after submittal as Class 2 only if it is <u>approvable</u> in its submitted form.	Current plan is to submit as Class 2.	

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Discussion Points

(9/4/01)

	<u>Description</u>	<u>How to Address</u>	<u>Status</u>	<u>Comments</u>
	<u>Material Parameter Weights (specific)</u>			
1.	EPA is lead agency which must approve changes on how MPW are determined (i.e., on waste stream basis instead of radiography/VE on container basis).	Must discuss and obtain concurrence from EPA. Without EPA concurrence/approval, NMED will not consider this proposal.	Dialogue with EPA has been initiated.	Will be discussed in meeting SNL has scheduled with EPA on Sept. 18-19 in Washington, DC.
2.	NMED interested in how "formula" that will be used for proposed MPW determination will be established (basis).	Present to NMED the basis for how MPW will be calculated in the proposed mod.	Information being assembled to present to NMED.	Date of presentation is TBD.
3.	NMED wants to review test data that provides evidence of validity for MPW proposal, i.e., NMED wants us to demonstrate that generator's AK is adequate for MPW.	Collect representative test data and present to NMED.	In process of being evaluated.	Was mentioned that new MPW determination methodology may be appropriate for only NG waste.
4.	The "Should Be" flowchart appears to indicate we will be using AK to confirm AK. Needs to be explained.	Develop justification that explains the proposed methodology of determining MPW.	Flowchart has been revised.	Shown as radiography used to confirm waste matrix codes (as AK confirmation) – in current permit.
5.	NMED may want to consider a reconciliation step for the proposed formula to be used for MPW determination.	Evaluate the necessity of reconciliation and how this would be done if needed.	Will evaluate and revised flowchart as appropriate.	
	<u>Headspace Gas Sampling (specific)</u>			
1.	If Room-Based limits exceeded, clearly define mitigation options.	Add text to permit revision.	Added in preliminary draft.	
2.	If possible, begin shipping/disposing waste streams with higher VOCs.	Ask generators to ship their high VOC waste streams as priority	Working with generator sites (through Jeff Cotton) to prioritize those streams, if possible.	
3.	Provide justification on what additional U/G VOC station will monitor (recently versus all closed rooms).	Add text to permit revision.	Added in preliminary draft.	
4.	If HSGS is removed, identify alternative methodology for confirmation of hazardous waste codes.	Discuss with NMED the regulatory requirements and EPA guidance interpretations on AK/Characterization process and clarify in permit revision.	Will formally begin discussions on Sept. 6.	

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	<u>Solids Sampling (specific)</u>			
1.	<u>Communications</u> NMED suggested several times that WIPP meet and discuss the proposals in the OE Mods with those public interested parties that will submit comments. Many times, valid technical comments that no one anticipated are submitted during the permit comment period. NMED is then placed in the position of having to deal with these comments.	Plan with the Communications Organization effective interactions with appropriate interested parties.	No specific plans developed to date.	NMED feels that early interactions between WIPP and interested parties will be of significant benefit to both WIPP and NMED.

How Does WIPP's HWFP Address the RCRA Regulatory Framework?

With the WAP - Attachment B to the HWFP (esp. B4)

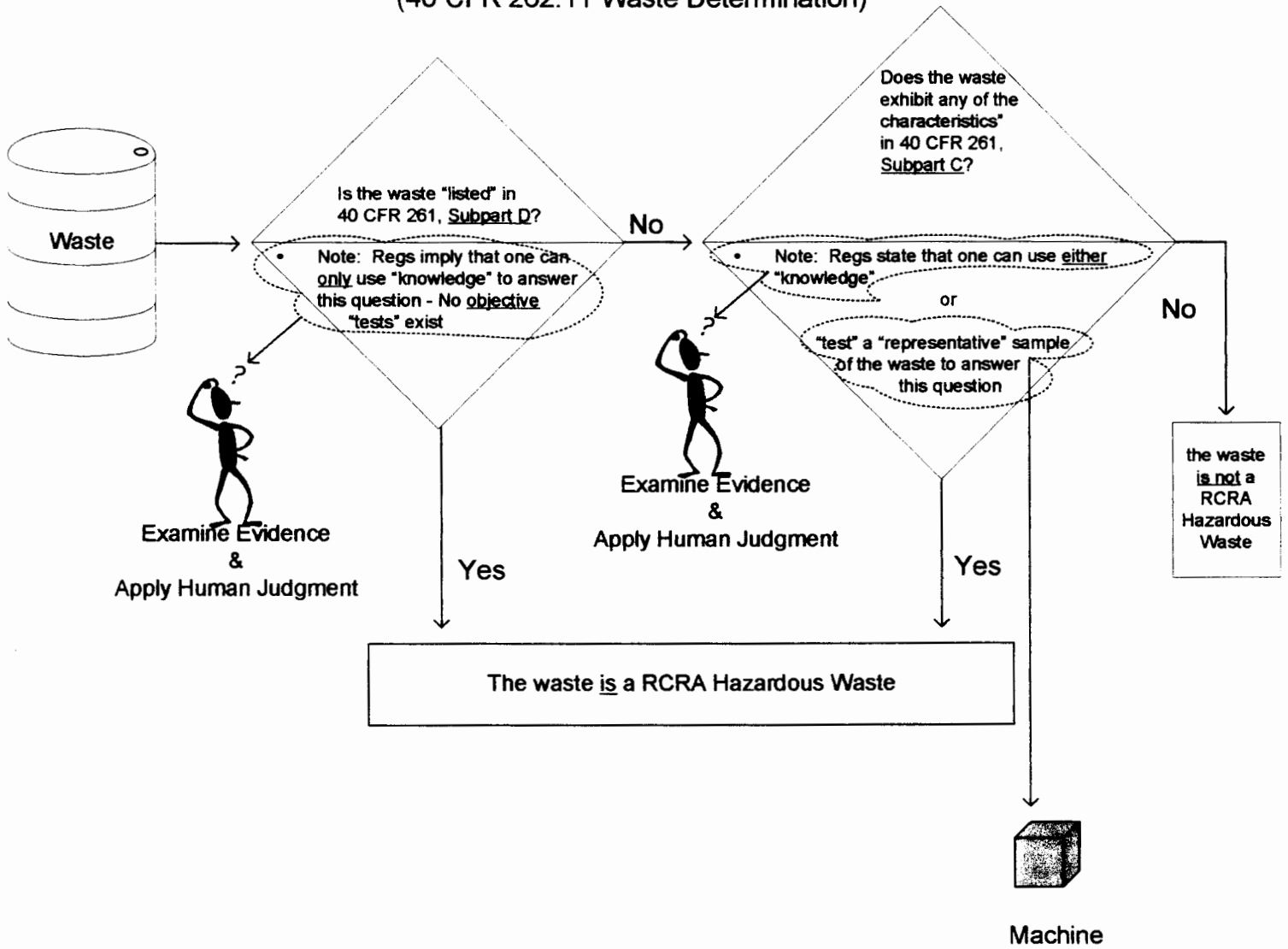
Can WIPP's Use of "Knowledge" be Conceptualized as a PROCESS that Satisfies the Regulatory Framework?

The "AK Process Model"

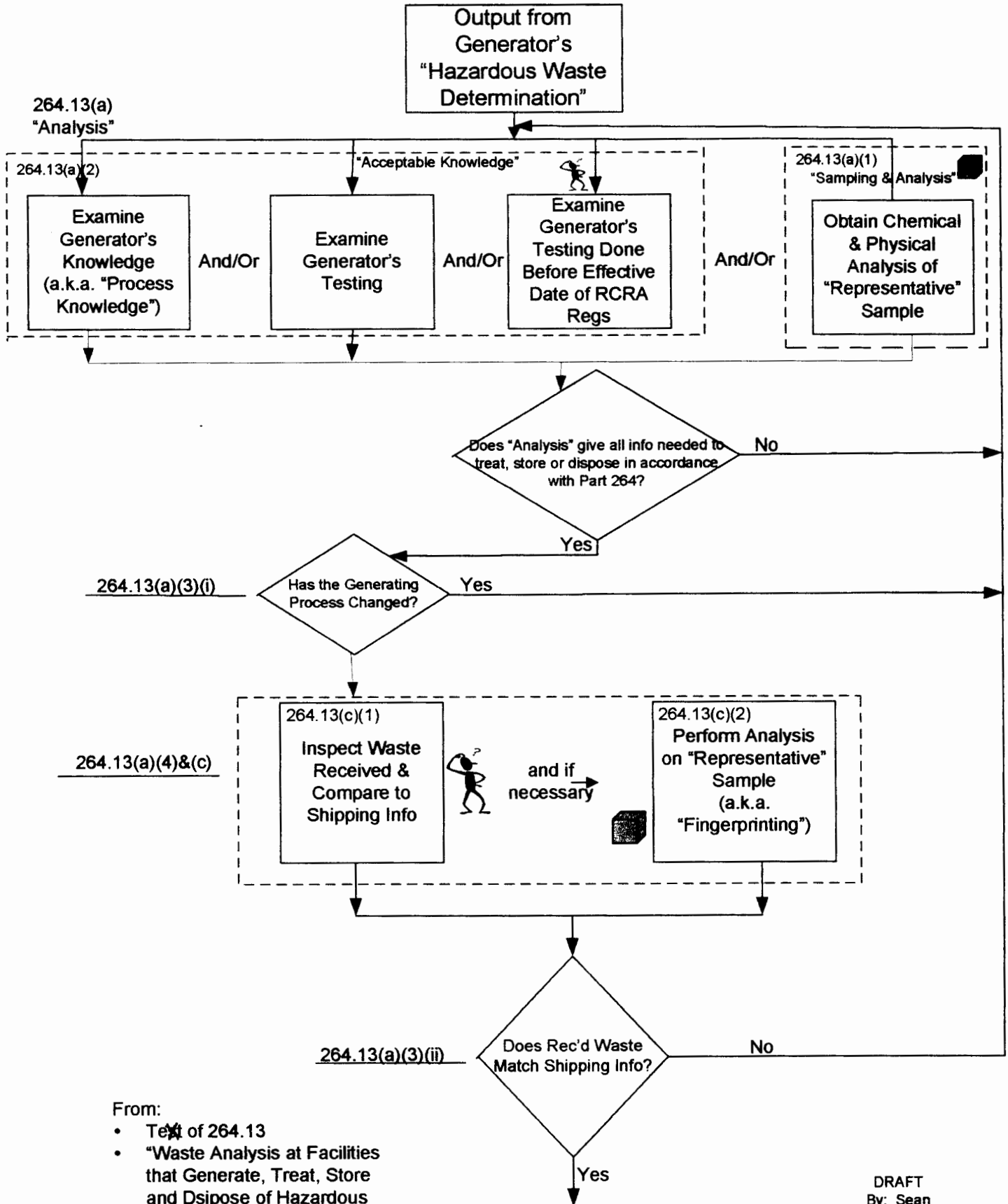
- What ⇒ • ***"AK Information"***
- Gathering
 - Examination
 - Decision-Making
- How and Who ⇒ • ***"AK Procedures"***
- Documents that Explain How All Elements of the AK Process Are Performed
- Verification ⇒ • ***"AK Confirmation"***
- Re-Examine Generator's/Intermediate TSDF's AK Info and Decision-Making
 - Re-Examine Results of Generator's Testing
 - "Sampling and Analysis"
- Monitoring ⇒ • ***"AK Auditing"***
- Monitoring of All Elements of the AK Process

Imagine superimposing some of these "Elements" of the "AK Process Model" on the "*RCRA Cradle-To-Grave Regulatory Framework*" - a pictorial representation

A Close Up Look at
20.4.1.300 NMAC
(40 CFR 262.11 Waste Determination)



Adapted from flow chart at
40 CFR 260, Apdx. I, Figure 2



From:

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

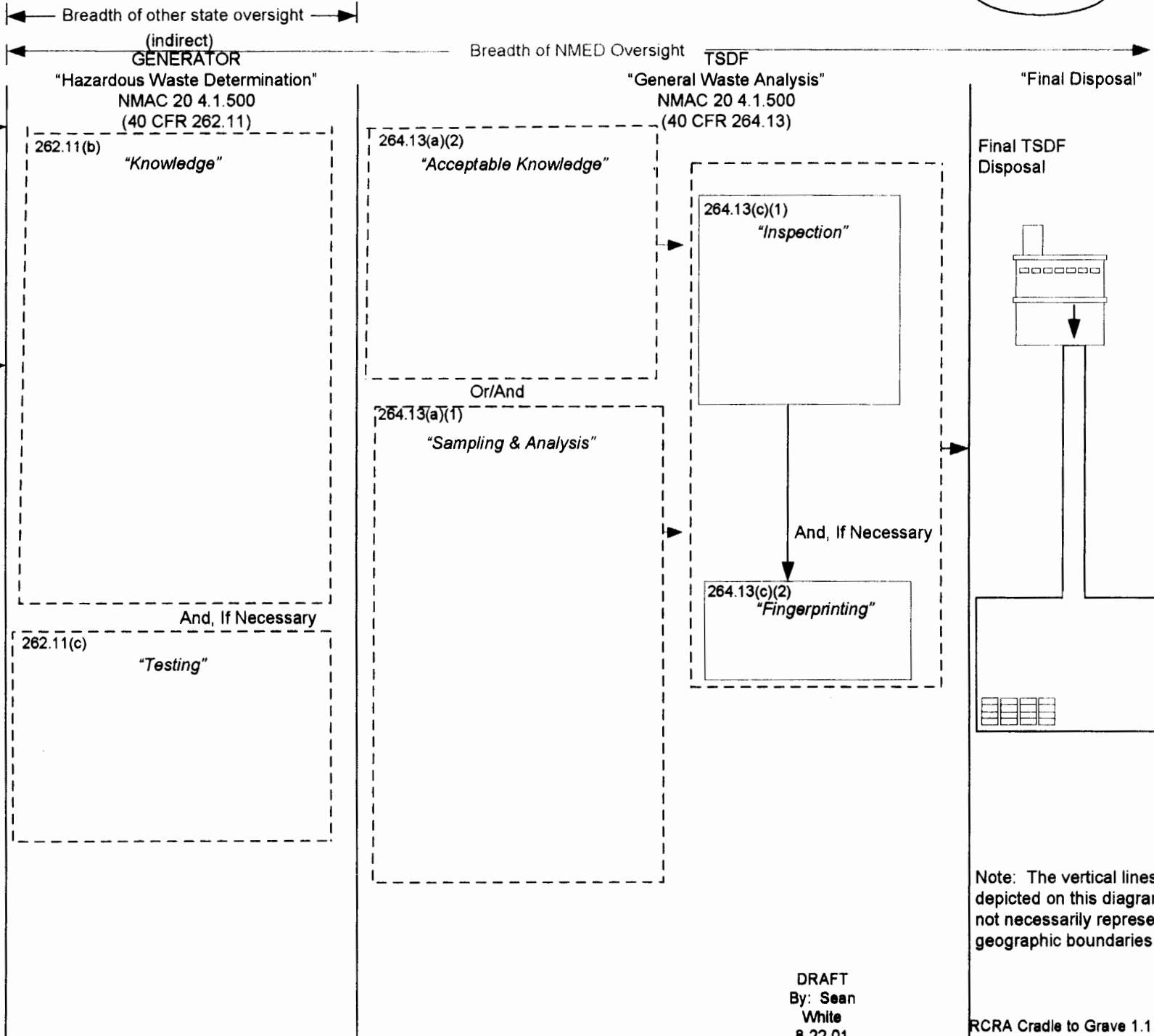
Output from "General Waste Analysis" proceeds to treatment, storage, and/or disposal

DRAFT
 By: Sean White
 8-28-01

The "RCRA Cradle-to-Grave Framework"

Begin

End



Note: The vertical lines depicted on this diagram do not necessarily represent geographic boundaries

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8-22-01

What Might be One Path Forward?

One Option (4 steps):

1. Reorganize Attachment B4 of the WAP to better explain the broad and complex subject of "AK" as a Process - especially the distinction between "AK Information" and other elements of the "AK Process". This can be accomplished by: a) the addition of some explanatory paragraphs in the introduction section, and b) reorganization of the existing text under various headings that follow the "AK Process" model discussed on the previous slides.
2. Establish an "AK Information Standard" in Attachment B4. This AK Information Standard could be a detailed list of mandatory pieces of AK Information that must be included in the "AK Record" in order for the "AK information" to be eligible for further consideration under the AK Process
3. Establish a "Model AK Information Decision-Making Procedure" in Attachment B4 that each generator site would incorporate into their existing AK Procedures.
4. Modify the Audit and Surveillance Program in Attachment B6 of the WAP, to ensure that: a) AK Information Decision-Making at the generator sites is done in accordance with the Model AK Information Decision-Making Procedure, and b) gathered AK Information meets the AK Information Standard.

Acceptable Knowledge And Sampling & Analysis Techniques	What Does Technique Tell Us?	Degree of Application to TRU Waste Inventory	Does Technique Corroborate 40 CFR 262.11 determinations?	<p>1) Does Technique give chemical info? Physical info?</p> <p>2) Does Technique give necessary info to dispose of waste in accordance with 40 CFR Part 264?</p> <p>3) Does Technique change way in which waste is managed at WIPP?</p>
Examination of Generator's Knowledge	<ul style="list-style-type: none"> - listed and characteristic hazardous waste codes - likelihood of prohibited items - waste form (matrix code) 	Only that portion of the TRU waste inventory that has "sufficient" knowledge to proceed directly to TSD's General Waste Analysis based solely on "knowledge"	Yes, both listed and characteristic hazardous waste codes	<p>1) Yes / Yes</p> <p>2) Yes</p> <p>3) Yes</p>
Examination of Generator's "Pre-RCRA" Testing	<ul style="list-style-type: none"> - listed and characteristic hazardous waste codes - likelihood of prohibited items - waste form (matrix code) 	Only that portion of the TRU waste inventory that has "sufficient" knowledge to proceed directly to TSD's General Waste Analysis based solely on "knowledge"	Yes, both listed and characteristic hazardous waste codes	<p>1) Yes / Yes</p> <p>2) Yes</p> <p>3) Yes</p>
Examination of Results from Generator's "Testing"	<ul style="list-style-type: none"> - characteristic hazardous waste codes - waste form 	Only that portion of the TRU waste inventory that <u>does not</u> have "sufficient" knowledge to proceed directly to TSD's General Waste Analysis based solely on "knowledge"	Yes, both listed and characteristic hazardous waste codes	<p>1) Yes / Yes</p> <p>2) Yes</p> <p>3) Yes</p>
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 	100%	Yes, some common "characteristic" hazardous wastes (e.g. D008, D009)	<p>1) In Part / Yes</p> <p>2) Yes</p> <p>3) Yes</p>
Non-Destructive Assay	<ul style="list-style-type: none"> - levels of various isotopes 	100%	Not Applicable	<p>1) In Part / In Part</p> <p>2) Yes</p> <p>3) Yes</p>
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 	First 50 containers, incentive determined sub-population thereafter	Yes, some common "characteristic" hazardous wastes (e.g. D008, D009)	<p>1) In Part / Yes</p> <p>2) Yes</p> <p>2) Yes</p>
Headspace Gas Sampling and Testing	<ul style="list-style-type: none"> - type and concentration of VOCs - levels of some 40 CFR Part 261 Appendix VIII constituents and some TCLP constituents in sample 	100% (with some exceptions)	No, within the regulatory framework, the mere presence of Appendix VIII constituents does not confirm proper application of a listed or characteristic hazardous waste code	<p>1) Yes (gas only) / No</p> <p>2) No, no container-based limits</p> <p>3) No</p>
Solid Sampling and Testing	<ul style="list-style-type: none"> - levels of 40 CFR Part 261, Subpart C TCLP characteristic constituents solids - level of PCBs in solids 	Statistically determined sub-population of containers	Yes, for certain TCLP constituents in 40 CFR 261, Subpart C	<p>1) Yes / Yes</p> <p>2) In Part, no limits in HWFP</p> <p>3) Yes (PCBs only)</p>

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What Is The Regulatory Path Forward?

Can **Regulatory Framework** be satisfied without headspace gas sampling or solids sampling?

Do Generator Sites need a better “AK Information Standard”? Perhaps one that:

- can be applied consistently across their operations;
- is more *objective* and less *subjective* and easier to use;
- can be implemented quickly;
- satisfies RCRA regulations applicable to Generator Sites and requirements of NMED

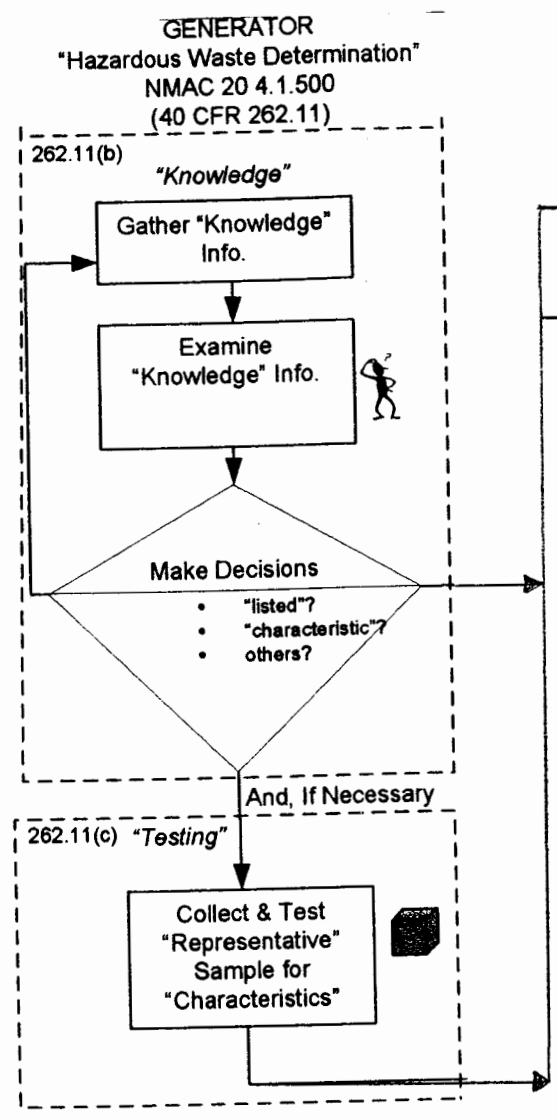
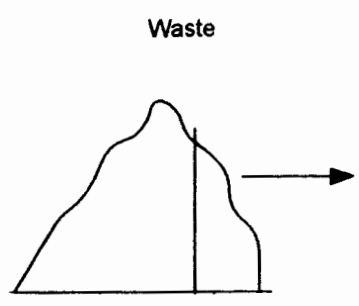
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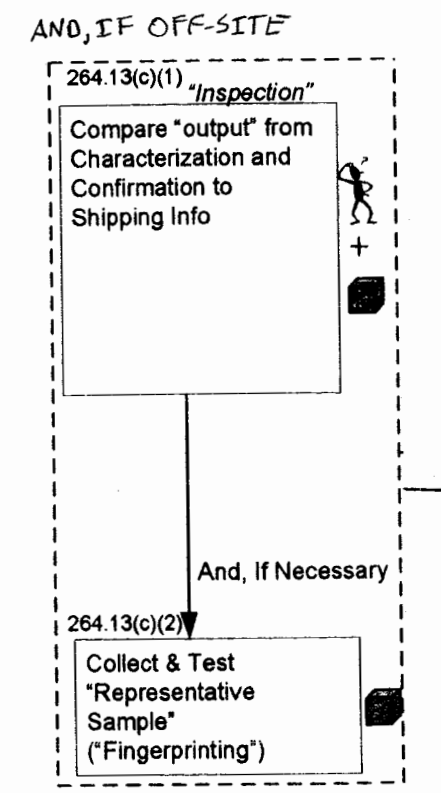
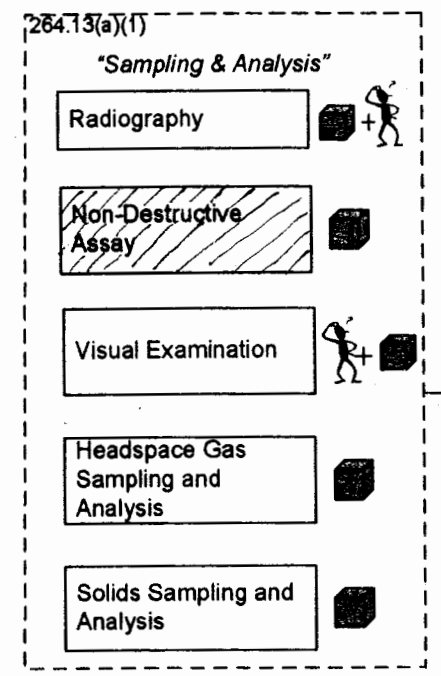
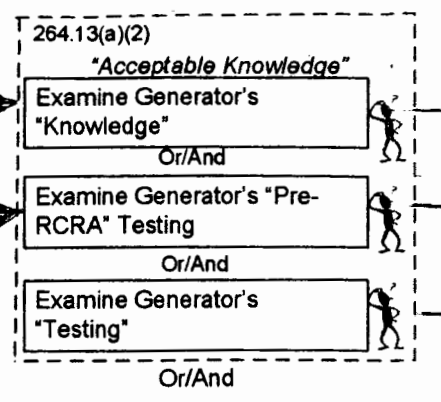
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The "RCRA Cradle-to-Grave Framework"

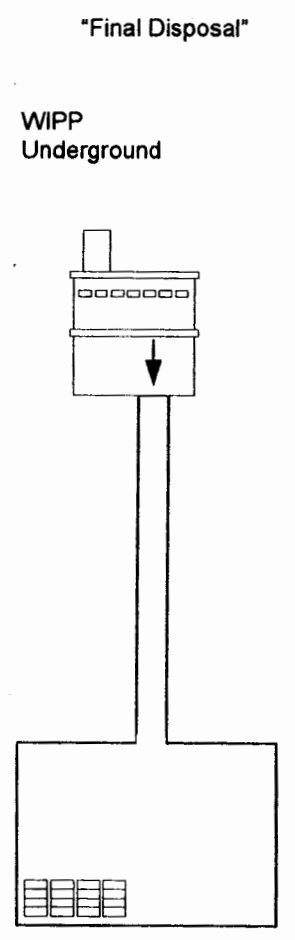
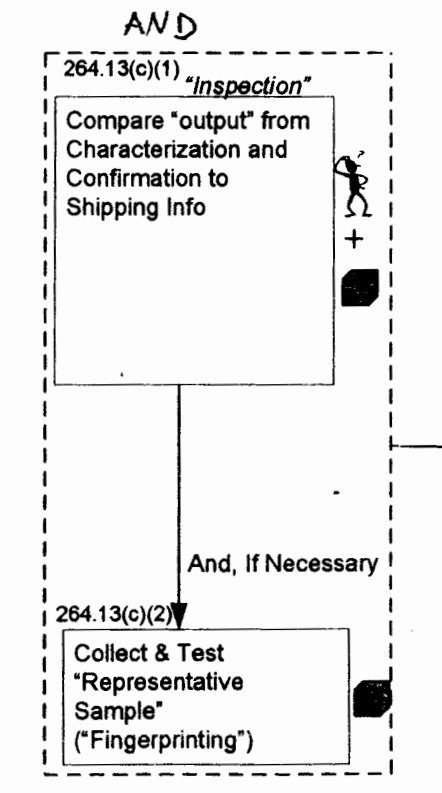
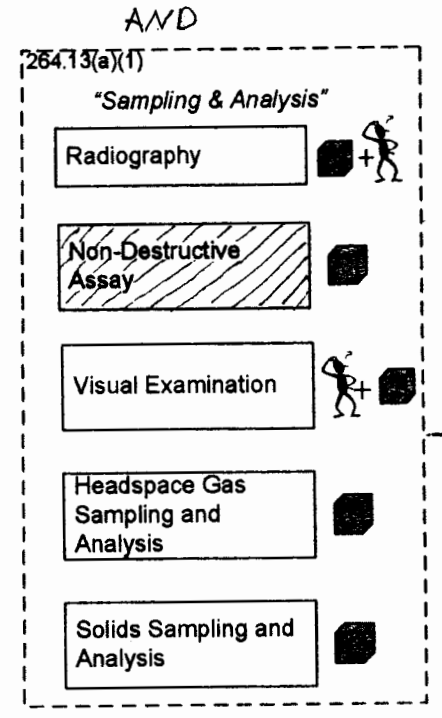
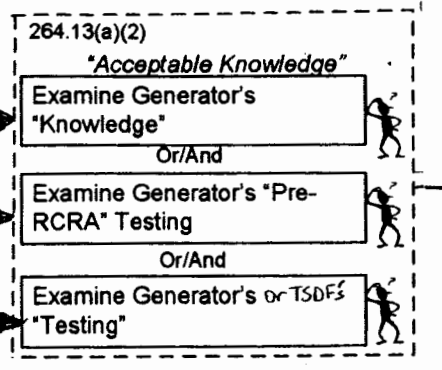
RCRA "Regulatory Framework"



INTERMEDIATE TSDF
"General Waste Analysis"
NMAC 20 4.1.500 (or Other State's RCRA Reg's)
(40 CFR 264.13)



FINAL TSDF
"General Waste Analysis"
NMAC 20 4.1.500
(40 CFR 264.13)



Note: The vertical lines depicted on this diagram not necessarily represent geographic boundaries

= Human Judgment
 = Machine

The "RCRA Cradle-to-Grave Framework"

