

MEMO

ENTAINED

TO: Steve Zappe and Barbara Hoditschek

FROM: Connie Walker

RE: Working Draft; potential technical issues, Chapters A and C

DATE: September 20, 1995

cc: J. Darabaris
B. Garcia
H. Sellers
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P. Goggin Hugo

Attached is our working draft memo outlining major (and some minor) technical issues noted during our brief examination of Chapters A and C. This memo is to be considered a rough draft, and additional commentary (including major technical issue identification) could arise as a result of the detailed review. Additionally, these topics are meant to represent those issues that we believe could be problematic; detailed review of the Chapter could indicate that some of these are "non-issues". When statements such as "additional investigation" are used in the rough working draft, this is meant to imply that A.T. Kearney would like to examine the issues more thoroughly, but DOE could, ultimately, be required to provide additional clarification.

The following documents should be provided to A.T. Kearney to facilitate this review:

QAPP, 1995a
Methods Manual, 1995c
PDP, 1995c

In addition, as NMED knows, legislation is currently pending regarding removal of LDR requirements for the WIPP. Headspace gas analyses is part of the conditional no migration variance requirements, but status of headspace program could come in to question if LDRs are no longer an issue. The need for maintenance of the headspace gas program should be examined (we believe that maintenance of this program is an important element of waste characterization, based on information reviewed to date).

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ROUGH WORKING DRAFT
FOR INTERNAL REVIEW ONLY

General Issues and Concerns
Chapters A and C
WIPP Part B Permit Application

Chapter A

*...now has
with the paper
before*

1. Additional examination of the Waste Handling Building regulatory status is required. DOE considers the Waste Handling Building an X99 unit, or "Other Subpart X unit". However, in the previous application and draft test phase permit, the Waste Handling Building was considered a waste container storage area. The function of the building has not changed relative to its use during the test phase, and it probably should be considered a storage unit. This would be consistent with both regulatory requirements and how NMED classified the building in the previous permit. *ARK state reference*

2. Waste managed within the waste handling area requires additional specification, and (verification of the SIC codes with previous Part A should also be done.) *no prob. SUE*

3. Completeness of the waste codes identified should be reviewed against the Baseline Inventory Report and Chapter C. *SUE*

4. The legend for Figure A2-2 indicates that there is a landfill and wastewater stabilization lagoon at the facility; A.T. Kearney should review the Part B to determine the presence of these units and regulatory status. *we'll call DOE 10/3*

5. *we'll request 10/3* A photograph of the waste handling building should be provided in the appendices to the Part A; also, overall completeness and accuracy of the appendix contents should be cross referenced with the previous submissions. *SUE*

Chapter C

1. Overall, this Chapter is relatively undetailed in some critical areas, including, but not limited to the following:

- process knowledge,
- QA/QC,
- sampling and analyses required at the generator sites-rationale, frequency, etc.,
- audit programs,
- waste forms to be managed at WIPP (they have removed any discussion of the 11 wastes listed in the original petition, stating only that metals and organic compounds will be included in WIPP waste)
- waste compatibility, particularly between containers and repository brine

- waste-generating activities at facilities, and resulting characterization of newly-generated waste
- management and analyses of derived waste and decontamination material
- laboratory selection and analytical methods
- verification processes
- WIPP WAC inclusion

Much of this information is included in supporting documentation, but the WAP should be somewhat stand-alone and include those elements deemed important to ensure safe management of wastes in the subsurface. Inclusion in a referenced document may not be sufficient, as DOE could change this document without NMED approval, and essentially alter requirements viewed as critical by NMED without NMED approval. Additional examination of the WAP relative to necessary level of detail and completeness is warranted.

ATK identify does to a tech to permit w/ justification

2. The permit application indicates that unapproved and as-yet undeveloped analytical methods will be used; analytical method development status is therefore an issue. Additionally, the need for NMED and/or EPA approval of non-SW-846 methods should be re-addressed.

EPA issue w/ NMED ask Benito

maybe defer to Ch D

3. Waste management during discrepancy resolution, container overpacking, etc. requires significant clarification (this is particularly an issue for Chapter D).

compare w/ BIR

4. The WAP is unclear and inconsistent regarding use of terminologies such as waste stream, waste-matrix parameter, summary category, etc. Review of the terminology meanings and applicability to this permit application is warranted.

SOE provide prelim list of terms, ATK check DOE define in gloss.

Determine current status of WAC

5. Screening procedures for unacceptable/incompatible waste requires additional clarification. *ATK review WAC, recommend additional conditions*

Waste generation issue

6. Waste "loading" issues relative to emplacement of material in the subsurface requires examination, as does the completeness of compatibility assessments included in the WAP (DOE indicates that previous compatibility assessments are still "good", but these require re-examination because waste from generators in addition to Rocky Flats and INEL will be accepted.) *include*

7. Procedures included to characterize future generated waste are too vague. *in QAPP*

8. Characterization and management of new waste streams requires clarification.[?]

9. Specifically how process knowledge (acceptable knowledge) of the waste streams will be determined, examined, used, cross checked, verified, and documented requires additional examination. *Acceptable Knowledge Guidance Doc. - ATK review*

10. Cross referencing of tables with the last permit application and/or permit should be done; tables may not be the same, as some may need to be modified to reflect new disposal phase information. *Why? SSB develop simple list. ATK shouldn't buffer.*

see 1

11. Need for inclusion of the QAPP and WIPP-WAC (in whole or in part) within the permit application should be determined. Both were included with the last draft permit, and DOE has indicated that it does not want either included within the disposal phase permit. However, inclusion of those elements which are required to ensure that appropriate characterization occurs before waste is emplaced in WIPP could be required.

12. It is assumed that NMED does not want A.T. Kearney to review individual facility QAPjPs or SOPs. *ASK Benito (probably not)*

need more info from DOE

13. The NMVP indicates the potential for significant gas generation during the WIPP operational period which could create D003 waste and associated potentially dangerous (explosive) conditions in the subsurface. The WIPP WAC indicates that reactive waste will not be accepted, but generation of explosive conditions once waste is emplaced is of concern, particularly since the NMVP implies that explosive conditions could occur. Additional evaluation of this issue relative to, for example, incompatibility assessments, is warranted.

14. Consistency in terminology between the WAP and referenced document could prove problematic; discrepancies between the various referenced documents relative to waste designation should be noted. *yes*

ATK identify table numbers!

15. We have not dealt with RH waste in the past, and any information pertinent to RH waste will require detailed review. Much RH waste information is missing, including analytical methods, etc. The WAP says it will be included in the Methods Manual when complete, but the permit application should include this information as well.

16. Inclusion of specific sampling and analysis requirements set forth in the QAPP should be included in the WAP. *[Also, examination of waste categories, streams, etc. for completeness relative to the BIR is warranted. (Checking of table 1 for consistency, accuracy, etc. is also required). Done by SSB]*

17. The WAP should provide more detail regarding management of derived waste, including use of "clean" solvents for waste clean-up. Requirements in this regard, specifically, will be cross referenced with the draft test phase permit for consistency relative to requirement set forth in the past. *why? SK*

18. Waste analyses methods, parameters, etc. discussion is very broad, and a more detailed examination is warranted (e.g. Table C-5). Also, a more thorough examination of analytical equivalency assertions and other statements made regarding the methods that are proposed, is required. *in Methods Manual, QAPP*

19. Detailed review of the Appendices is warranted, although some (e.g. Appendix C3) should be comparable in terms of content with previous permit application appendices.