

CENTRAL MIDWEST COMPACT COMMISSION

for Low-Level Radioactive Waste Management

1035 Outer Park Drive • Springfield, IL 62704 • 217/785-9937

16
4/13/88

Clark W. Bullard, Chairman
Terry R. Lash, Secretary-Treasurer
Donald R. Hughes, Sr., Commissioner

40-2061
→ Lewis, OGE

March 28, 1988

Mr. Leland C. Rouse, Chief
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Rouse:

Thank you for your letter of March 4, 1988, regarding the regional low-level radioactive waste disposal facility being developed for the Central Midwest Interstate Low-Level Radioactive Waste Compact ("CMC") region. You asked whether any potential sites have been chosen and where those sites are located. Under the process established by the CMC, the host state, Illinois, is responsible for establishing the regional facility. The entity responsible for those activities is the Illinois Department of Nuclear Safety ("IDNS"). I have enclosed a copy of the Site Identification Plan and Status Report issued by IDNS in January, 1988. The report shows that one or more candidate areas were identified in nearly every one of the 21 Illinois counties studied so far. The report describes the methodology used to identify the candidate areas. Also, I have included a copy of the county-specific evaluation reports issued by IDNS for each county studied. I recommend that you contact:

Dr. John Cooper, Manager
Office of Environmental Safety
Illinois Department of Nuclear Safety
1035 Outer Park Drive
Springfield, Illinois 62704
217/785-9954

for additional information on the site selection process. Dr. Cooper will also be able to advise you on IDNS's position regarding suggestions that the 11e(2) byproduct material in West Chicago be disposed of at or near the regional low-level radioactive waste disposal facility. Please do not hesitate to contact me if you need information regarding the CMC.

Very truly yours,

Clark W. Bullard
Clark Bullard
Chairman

CB:sp
Enc.

9001240293 900119
PDR FOIA
LASH89-386 PDR

Illinois • Kentucky

additional info 29209
B/7

10/21/86 - Meeting with ANL
Groundwater modelling:

Charley Yu -

P. E-13. 5480.1(A) - DOE Order

Ch. 11 of CFR.

Determine whether there has been a change from 100 pCi/l to 30 pCi/l.

Recommended level - E-13. Reference should be added.

40 CFR 141 - source of 5 pCi/l for RA-226.
→ Illinois st'd (see Table 2.10 is 1 pCi/l

EPA Drinking Water st'ds - verify that just recommended. More stringent State st'ds would control

m.c.

Witnesses - 10/21/86

3.
Get preparers
list

Cost-Benefit & Chemical Characterization
of Wastes - Paul Benioff
(Description of surface w. Quality)
Groundwater Modelling - Charley Yu and
Steve Tsai

Jeff Shubert - Alt. Site Analysis,
Characterizing Geology,
Radiological - John Peterson, John Wang.
Wang did calculations; Peterson re-
viewed, did some rewrite.
Peterson ~~did some~~ calculations did some of
work on transp. doses.

10/20/86 - Meeting with ANL.

"No action" has to be included as a baseline for benefits in avoidance of rad. exposures, gwtr contamination, etc.
Would have to be discussed in the Cost-Benefit chapter.

Needed re "No Action":
John Peterson, John Wang projected rad doses - 1,000 yrs.
• gwtr. contam. (Charley Yu)

Coal companies want to review DSES prior to issuance.

Solution:

- 1) Write to those companies advising them that the DSES will be available for their review. Do it at time of sending out DSES.
- 2) Rely only on publicly available info.
If rely on memos of conversations, attach to DSES.
If rely on maps supplied by coal companies, attach to SES.

~~Maintenance/monitoring~~

Note: NMSS has advised KM informally that if they were to seek unrestricted use of Factory Site, it would have to meet Option 2 of BTP.

p. 3-29: Simply state what matters not included in cost estimates because not known at this time.

Kerr-McGee West Chicago Project

NRC-ANL Joint Meeting to Discuss PDES

October 20-21, 1986

Items for Discussion

- ✓ Identification of alternatives (KM proposed action)
- STP in SFES. ✓ Contaminated soils from Reed Kepler Park and Sanitary Treatment Plant (letter from Stuter to Crow) - Merri will address RKP in Preface.
- for drainage ✓ Required land areas for alternative sites - space require ditch around any cell. Bases for 150-ft border
- face would have to be owned. First by KM, then Civit.
 - ✓ Purchase of surface land for underground mine site
 - ✓ Cost for site characterization (Not at this stage.)
 - ✓ Review of PDES by coal companies
- ✓ Transportation options. Railroad not included in analysis. Could not totally replace truck.
- ✓ Schedule
- ✓ Others

- Table being prepared showing acreage required for each site (including 150' border - for ditch, operational areas, etc.)

- Give Benioff the basis for using \$1,000/acre rem. Safety Goal Policy Statement.

Paul will do analysis to determine whether RR use would be any more cost beneficial than trucks. An initial analysis to determine what to look further.

Items for further consideration on NRC
Staff comments on DSES:

p. 1-4: Is there any obligation to consider availability of the sites in the alt. site analysis?

p. 2-35: Criterion 8 is not limited to operation of the mill. It also covers control of doses (to ALARA) from 'uncovered byproduct material' during the pre-closure period.

Is the West Chicago facility being held to the requirements of 8A (daily inspections by a qualified engineer or inspector - check with R III).

Note OGC suggestion that App. A just be generally mentioned in SES.

In Chapter 4, sections on property values - check whether this is a proper secondary (indirect) impact to consider.

Check in Section 2 on putting in some listing of applicable SWDA ~~to CFR 48, App. A standards.~~

Chapter 7 will be worked on to supplement.

p. 3-31: Determine whether 1,000
23-53: yrs. is appropriate for the site surveillance activities pursuant to App. A.

4/24/85. Meeting at ANL. Preparation of Supplement to FES.

ANL 4/17/85

- ANL should take another look at the exclusion of surface coal mines. Pick the best one from among those identified by KM. Make use of the State information in this regard. Give State option to direct us to a surface coal mine that we should look at rather than (or in addition) to KM's identified sites.
- Seek Summary Disposition of KM bias issue.
- Locate the document on the offer of land to KM & provide to NMSS/ANL.
- Concurrent review by ANL and KM of the additional alternative sites.
- "Conceptual" design of disposal cell at alternative sites. Use a generic design where appropriate - taking into account site specifics as necessary.
- Benioff will do the cost analysis, review & concurrence by a cost/benefit person.
- 40 CFR 192 analysis - Fonner's comments given to ANL. Nixon said stability of site should be considered in design of cell.

6
flooding.

- UMTRCA analysis has to include consideration of App. A to Part 40. Discuss with Fonner what criteria should be used.
- Consider whether the UMRCA analysis of the West Chicago site should be issued separately and in advance of the Suppl. DEIS. Remember that KM has issued its analysis.
- ELD to advise ANI on:
 - a) when UMRCA analysis of West Chicago site is to be issued
 - b) what needs to be done under App. A to Part 40.

5/13/85 Telecon with Tsai.

As to the meeting with Illinois:

- Jeff Schubert also in Env. Resources Division - will attend meeting with Illinois in Steve Tsai's place.
- He (Jeff) has been studying leach from abandoned coal mines.
- Pam will attend the meeting.
-

6/5/85 - Meetings with State of Illinois

IDNS (John Cooper, Dave Ed), Anne Rapkin

NRC - ^{Jeff} Schubert, Panda Merry-Libby, Bill Nixon, Steve Lewis

West Chicago

- lack of buffer fm. population.

IDNS facing some problem in Otto. (Luminor Products) ~~eg.~~ problems related

- monitoring problems (to difficulty in interview ~~to Spanish speakers~~)

Site is over an aquifer (the d.d. that has been depleted in that area, but is being recharged.

IDNS responsible for monitoring ~~for~~ radium in wells.

water level [↙] drawn down.

Natural radium levels in the deeper wells is quite high - a W.C. exemption was given.

* West Chicago does some removal of the radium.

A and house being taken down in W.C. as a result of radiological contamination.

New deeper wells being drilled by City of W.C. We should check with the Surveys.

IDNS applying the same criteria irrespective of whether dealing with "low-level waste" or feller type wastes or hazardous chemi

2]

Value of the resources on potential sites are major consideration in giving weight to acceptability of site.
Major concern of IDNS: what pathway of contamination.

IDNS's focus is on containment of the wastes.

Weighting Criteria will not be published until late 1985.

July 1985 estimated date for availability of data from Surveys. (Are screening criteria.)

IEPA permitting criteria } IEPA: criteria that would be applicable to any land disposal (non-rad wastes) - i.e., applic. to ~~the~~ Kerr-McGee wastes.

Contained in document attached to State's response to KM (Rare Earth).

Criteria/standards on siting of ~~low~~ low-level waste sites not yet available.

State does not intend to establish criteria for disposal of wastes such as at W.C.

Cooper says the criteria for low-level sites are considered equally applicable to KM type wastes.

A contractor will select low level sites based on the criteria. Statutory mandate is for State to proposed 3 sites.

3) As to whether State will be develop criteria for action on presently existing hazardous sites.

Sub-question: what criteria does IEPA have for deciding when to cleanup a hazardous site under the State's "Superfund" statute.

Or whether IEPA planning to develop such st'ds.

IEPA enforcement action on KM is the State lawsuit. Not brought under State Superfund statute.

letter { We told Anne that we need to see the State's information on the first level screening soon. She indicated that the material will be available in July 1985.

But that material will not include criteria for narrowing areas down to sites.

Sounds as if it is basically going to be left to the contractor to go from area to site level.

Bill Frerichs, Deputy Chief of the Environmental Control Division of the A.G.'s office. Not an atty.

Geological Survey: Ask if they have run some multivariable maps using the GIS for ~~app~~ locating low-level waste.

~~It~~ See if such data can be generated for our use soon.

GIS could be used to give input on accessibility.

41
sites. ~~Staff~~

~~1: 500,000~~

~~1: 500,000~~

The resolution under 1: 500,000 scale
is areas of about 2,000 square miles.
Best resolution may actually be a few square miles.

GIS was installed, starting 2 yrs. ago.
Only this past year became available
for giving output.

Frerichs unable to state specifically ~~the~~
~~level of~~ what the capability
of the GIS is to give levels of
confidence as to its output.

Frerichs indicated that they did some GIS work for IEPA. } We should explore what use IEPA has made of GIS to assist in determining whether a proposed land disposal site is acceptable.

We should explore IEPA records on grants or denials of permit applications to see what it could tell us about specific alternatives in Rare Earths matter.

But IEPA records poorly organized
~~May be~~

Surveys will have log, etc. data that might be relevant to the 6 KM alt. sites.

Go Survey - 1st floor conf. room

MEETING ON ~~KEY~~ MCGEE, W. CHC. SITE 6/5/85

<u>NAME</u>	<u>AFFILIATION</u>	<u>PHONE #</u>
PAMELA MERRAY-LIBBY	ARGONNE NATL. LAB	312/972-31
Anne Rapkin	ILL. AG	312-917-3
W. A. Nixon	U.S. NRC	301-427-4570
Jeff Schubert	Argonne Natl. Lab.	312/972-3
DAVE ED	ILL. Dept. Nuclear Safety	217-546:
John W. Cooper	ILL. Dept of Nuclear Safety	217-546:
Stephen Lewis	NRC-ELD	(301) 492-81.
WILLIAM FRERICHS	Off. Atty Gen.	(312) 917 2517

6/6/85 - Meeting with State of Illinois
at Univ. of Ill., Urbana, Office of
State Geological Survey (ISGS)

ISGS has the capability to go to its
detailed records if asked to give
its views on a particular site.

One map shows "Public Interest Areas."

Weighting decision not yet made.

ISGS has done some weighting by virtue
of deciding what to characterize
as an aquifer. 70 ~~g~~ gallons per minute
(100,000 gallons per day) used as definition of
"major aquifer."
A series of ~~single~~ single-variable maps
were shown to us at meeting.

- Resolution down to one sq. mile.
- 14 variables are being input to the
July ~~*, *~~ composite "blue-line" map will
be available.
- Check with Tsai as to whether he
looked at data fm. Surveys on
the 6 county area around Chicago
- available at Northeastern - State
Planning Agency.

KM visited Surveys in late 1970's.

- Bill Gonus ~~ff~~ was the contact fm.
KM.

- Also, later, Jim Grant & Low Engineering

Oct. 3, 1980 Steve Tsai met with
State Surveys.

As to particular sites, if Staff were
to ask Surveys what they know about
those sites - they would have to go
to the sites.

2) The list of data bases ~~is~~ which are available on the GIS ~~is~~ will be made available to us.

- GIS users so far are only State agencies.
- DENR believer that State would be willing to contract with NRC Staff to do run on the GIS.
- Surveys have not yet been asked to use GIS to look at alternative sites to Sheffield.
- Also have not been asked to use GIS to locate areas as alternatives to KM wastes.
- Potential for Contam. map - which we already have - ~~has~~ basically shows the nature of the materials.

Sept. - Oct. 1984: KM people come to USGS to discuss the plans for Stabilization at W.C. Also described Kress Creek. Staff asked for details of the conversations. Rapkin agreed to locate documents or explore memories.

this meeting included discussion of potential for contamination at alternative sites

- USGS criticisms of KM analysis of specific sites:
 - no drilling
 - elimination of surface minesTom J. doesn't know the details of what KM did.
- IDNR demographic factors supposed to be available Summer of 1985.

3) maps for Staff & ANL.

- In Surveyor's files - one could locate the opinion letters they have issued regarding proposed waste sites. Filed by County/Township.