8070 Permit

NMED 1-12-87

Sandia
LANL
WIPP

DOE present waste mgmt activities is what DOE is wanting RCRA exemptions for. DOE knows there are past waste management problems which must be dealt with under RCRA (SWMUs) or CERCLA

periodically
ED can inspect at the pt. of generation for waste going to WIPP

EEG says DOE is a very secretive organization and wants their own flexibility. Also DOE has been "sloppy" on waste mgmt criteria. Regs. more lenient than Commercial sector.

Labs have resisted oversight from DOE H.Q.

(1)

14905

Alot of TRU waste is buried at L.A.N.L.

Arroyo has had H.E. waste, capacitors, and rad. waste, dumped in it.

40's & 50's - had alot of things dumped in arroyo's. Materials are moving downstream.

An Indian pueblo downstream of L.A.N.L. is concerned with contamination. A California lawyer is on retainer for the Pueblo.

CEARP - how does it fit in?

Hilton - San Francisco street
Birell Vincent 5:30 (re: Kelly Grossman)

(2)

N.M. has not decided whether or not to get authorized for mixed waste.

H.L. waste not a big factor in N.M.
TRU waste prob at LANL.
Sandia generates only a few barrels or TRU waste/year but is sent to LANL for storage.

N.M. in a conflict resolution status on WIPP compliance w/ 40CFR191.

NM has a problem w/ WIPP lack of hydrogeologic studies.

N.M. has problem w/ getting information from DOE. DOE hides problems from the State.

Secretive, non-committal, hides behind executive previlege.

State has limited knowledge on how much rad. waste is produced annually, and how it is managed.

State/DOE State ~~does~~ is not authorized to issue NPDES permits.

In NM, no air combustion sources have been applied for.

*N.M. thinks that State laws can control (regulate) mixed waste, although Fed. authorization has not been granted.

Manpower is a problem in being able to really get on top of Mixed waste even if they had the authority.

(4)

Boyd says make 260 sumi's at L.A.N.L.

WSMR may have rad mixed waste due to its Star Wars projects.

N.M. can inspect mixed waste generators at the pts of generation ~~de~~ in other States.

N.M. not pleased with trupak container design for hauling H.W. to WIPP. This may be redesigned

EID wants to keep options open to be able to have say sea or mixed waste.

NPDES outfall — TA-50 H.W. treatment (rad waste also.)
TA-16 sfc imp
TA-53
Beryllium contamin ditch — TA-35

1-13-87 — Los Alamos Nat. Lab.
Wayne Hansen - M.C. Site Visit

LANL generates no H.L. waste
" " " TRU waste

Semi welded tuffs from old volcano
1100 - 1200 ft is depth of G.W.
drinking water comes from 850 ft depth.

LANL
Main mission — Defense of Nation
Also research in energy
Proton accellerator here.

Nuclear warheads
New concepts for defense — explosives research
Arms control area
fossile renewable & geothermal energy

LANL is 43 square miles large.

©

32 Active technical areas
30 are inactive and can be looked at thru CERCLA?

Employs 8,150 people,
4060 people on defense

National resource for computer modeling.

Operations, Research, development is what LANL does.

Health Safety & Env. Council
puts out Policy guidance
advises on risk acceptance factors

Mary Walker's office will be in LANL in March to audit the Env. programs.

H.S.E. (Health, Safety & Env. Div) figures out how the Lab will comply with Fed & State regulations ie: they interpret the regulations.

HSE-7 - Waste Management
Raymond Garde (head of 50 people in this group)

LANL incinerator is to burn mixed waste.

TRU is stored at area G
A, B, C, G → active site have buried TRU waste buried before 1970

Area L was used for H.W. burial but it is now only a stg. site.

Health risk for retrieval of Rad. waste is high. Report on feasibility of retrieving waste is due in June.

(C)

added cover
maintained fences } at L.L. H.W. sites

tritium moves thru medium particularly w/ water & water vapor.

Hansen says retention in tuff and distance to water table is such that uranium will take 1 million years to get to water table.

or Area G monitoring well is a drinking water well

Organics monitoring started at LANL 2 years ago.

Doris Garvey - into Economics of complying with regulations.

LANL Area offices is the last office which gets a NOV response etc.

Garvey - works w/ H.W. and not radioactive waste.

Lab. Env. Compliance Mgmt Committee
- encourage total lab participation
- maintain good relations w/ EID, EPA
- provide internal audit system.
- assess lab capability to comply w/ Env. Regulations

ECMC formed in 11/85
is an advisory committe to Garvey.

FY87 Budgets

Env. prot. & compliance

(Sanitary sewer consolidation project ongoing

Env.** Projects are ranked by risk. = Environmental Risk and Risk to the Lab in the form of monetary fines $.

LANL has shipped PCB capacitors to Ensco in Ark last year.

Garvey's projects are a tax on other tasks at ~~DOE~~ LANL.

Garvey's office refers info on RCRA compliance to the LANL area office which then deals w/ EPA, ED. (11)

LLW buried 1982 - 4535

☆ total buried 1944 - 1986 20,410 m^3

No H.L. waste remains at LANL.

TRU waste stored (1971 - 1986) 7453 m^3

processing, purification of plutonium is done at LANL.

Chemical treatment and cementing of liquid Rad waste is done at LANL.

All TRU waste in storage is unclassified.
Some TRU wastes are classified at pt. of generation. Best Generator processes it to declassify it.

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Some TRU waste may be mixed due mainly to heavy metals content. (This is due to ~~built in~~ lead shielding of containers for TRU waste

~~Now~~ LANL is in process of retrieving all stored TRU waste. (1997 is target date to do this)

*Newly generated TRU waste at LANL is being certified for WIPP.

HSE-7 is the focal pt. of newly generated TRU waste.

Generator prepares operating procedures to meet WAC in Attachment of Health and Safety Manual.

(13)

Each TRU waste generator treats the waste according to the attachment. The generator fills out the "data package" which accompanies the waste package to the LANL TRU storage area. At the Storage area the waste package is again inspected and info is included in the data package.

LANL would treat corrosive wastes before they go to W.I.P.

LANL expects to incinerate solvents in the TRU/H.W. incinerator.

There are TRU limits on the incinerator (what are they?)

14 335 m^3 is volume of waste predicted to go to WIPP.

H.W. stored, treated, disposed is tracked on a Hewlett Packard Computer

20,000 packages are ~~stored~~ on pads then dist covered.

Detection of radioactivity is how LANL detects if drums stored on pads are breached ☆ (This seems after the fact to me).

Retrieved waste handling
size reduction
incineration
immobilization in cemented matrix.)

Hansen – EEG – strictly TRU WIPP waste

Still the question of what is a mixed waste.

*DOE has a deal w/ N.M. to not use WIPP as a purely H.W. disposal site.

*LANL gets a few drums of TRU waste a year from Sandia and a lab in ABQ, Sandia will have to do a generator certification attachment for the TRU waste they generate before it's shipped to LANL.

(6)

CEARP

RCRA-RI is Phase 2B of CEARP

Currently doing Phase I report looking RCRA / CERCLA sites including 3004(u) sites.

Phase I to be completed 7-87.

Phase 2A - development of monitoring plan

Phase 3 was completed in 7-86 but will be revised.

CEARP - does it identify which areas are CERCLA and which are RCRA regulated.

Does the fact that TRU waste contains only lead (HW) hold for past buried waste.

Drypolakes 1-13-87

Radioactive Waste treatment plant discharge has some indication of higher levels of HW constituents.

LANL's Part B application is 4 volumes

125 NPDES outfalls total
110 industrial
15 sanitary

Closure Plans have been submitted for all L.D. areas at LANL.

Trial burn report due to EID in May 87.
(Characteristics and listed wastes are to be incinerated.)
*Will TRU waste be mixed w/ haz waste ash. (IE)

* Ken Greer — Rocky Flats DOE
2 wk tours at ABQ area office
until March. Offered contacts,

Told of F.F. conf. Send him
~~the~~ information.

* Tell ~~him~~ Candy Brown he
said hello and congrads
on Branch ~~Chief~~ position.

Ken Greer is DOE contact for LANL
Part B applications and
coordination (over & above)
LANL personnel.

Tour of LANL 1-B-87

TA-3 - Main lab area
lots of Bldgs.

CMR building has 6 mile radioactive waste pipeline double lined, 5 years old and monitored every 5 feet.

Incinerator - Highly modified
- dual chamber
- Ram feed
used for volume reduction of
TRU waste.

Carbon tet 4-9's
tri chloroethane - dioxin compounds 6-9's.

Mixed waste to be burned in
the Incinerator.

~~May accept~~ May accept
off-site TRU waste

* Incinerator is burning
H.W. that is not mixed waste
as well as mixed wastes.
Question: of inc drums
listed waste where will H.W.

(21)

ash go?

Waste reduction fac. handles only TRU waste not Hs mixed,

If incin burns ~~or~~ H.W. and H.W mixed then mgmt procedures must ensure ashes are separated.

* Area C has Chem. Waste site.

Radioactive liquid waste

physical / chemical treatment utilized.

pipe within a pipe.

*industrial and radioactive mixed wastes are sent down the same pipeline. LANL is only recently gearing up for organic analysis.

20,000 gallons of liquid received per day.
this makes 2 barrels of solid LLW, which may or may not be mixed haz. Its not known because of no organics / solvent monitoring

60 drums of TRU waste is generated each year at the plutonium plant. This is then

cemented together.

Computerized w.w. treatment monitoring system.
pumps and valves can be turned off and on by computer.

Ask Tech Sect.
When will the VSI for Sandia be scheduled.

Is it week of the 20th
Call Ken Greer
this week

wants EPA person to accompany contractor because this is the first VSI to be done at a DOE fac.

L.L.W. liquid waste streams may not be adequately analyzed for H.W. since outside labs are not set up for the combined Radioactive and H.W. analysis of the same waste.

extensive leaded gloves in vicin and antihelicopter fence.

TA-54
on finger mesas w/ deep canyons in between.

new facilities to be built to process & store TRU waste.

Area J - used for non-RCRA waste ie: metal; asbestos

TA-54 has a closed Chemical landfill and active Chem. waste (H.W.) storage.

Area G. 1958 - all stored TRU waste here plus buried T.R.U. (pre RCRA) as well as mixed waste.

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TA-54 has extensive barbed wire fences.

(very) L. L waste pits here.

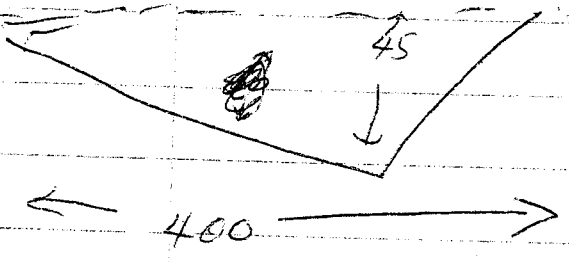
80 ft x 400 ft x 45 ft pit lasts 1 year.

waste is compacted and covered daily.

Compaction minimizes subsidence,

pits or

sfc



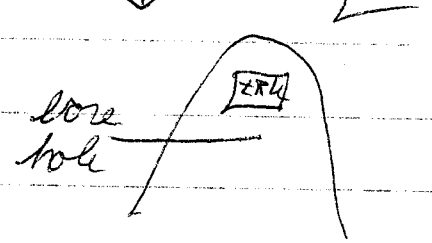
Meteorological station is here

4 Air monitoring stations are in TA 54,

2 ft X 65 ft shafts are here filled w/ TRU waste,

TRU waste stored in drums covered w/ plywood then dirt,

Horizontal bore holes were done at TA-54 under TRU buried waste.



White Rock community is about 1 mile down the hill from the TA-54.

H.W. storage is roofed and has concrete pad, (but did it have berm?) ie: 10% of volume of containers.

Question

What is radioactive cutoff limit for waste to be incinerated.

What criteria is used.

Does CEARP identify ~~[illegible]~~ which limits are CERCLA and which are RCRA.

LANL can make H.W. from any chemical in the stock catalogue and synthesis products.

G.W. monitoring wells ~~are~~ hit water at 900 ft but they are screened from 1000 to 1200 ft.

There are fractures in the tuff. DOE wants to replace g.w. monitoring with vadose zone monitoring.

B. Vincent says evidence good if DOE can show water recharge to aquifer does not occur in the area. ex: radio date sfc water to show no infiltration to the G.W.

W.W. treatment system double pipe is Black polyethelene

EPA H.Q. had a prob w putting dirt back over TRU waste ~~before~~ after it was certified for W.I.P.

30

Seismic activity — low
recurrence 1000 years of
a 5 on the Richter scale.

LANL continuing to do
studies on ground accelerations
etc.

Erosion is 10 cm / 1000 years
laterally and 2 cm / 1000
vertically on the Finger
mesas.

(100 grams of TRU waste
can be introduced in the
incinerator at one time
from a criticality concern)