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Dear John, please find enclosed additional comments on Richton EA. Please pass on for typing to B. Jagannath or to J. Pearring. I recognize that one reference is incomplete, but I do not have it here, will complete in typed draft.

Thanks, Jack Daemen.

WM-RES
WM ~~Record File~~ A1755
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WM Project 10, 11, 16
Docket No.
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Distribution:
Fleshel
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Selected Detail Comments

Site: WMEG/EA/ Richton Dome Reviewer: JJKD Date: 1-14-85

Chapter: 5 Number: _____

Section: Figure 5-23 Heading: Location of Existing and Planned Commercial Reactors, Page: 5-73, Paragraph: ___

The figure shows the location of Existing and Planned Commercial Reactors

The figure suggests that the Palo Verde is practically in Yuma, Arizona, whereas in fact it is West of Phoenix, i.e. significantly more to the North and slightly more East

It is recommended that the Palo Verde units be plotted in a more nearly correct location

Selected Detail Comments

Site: WMEG/EA/ Richton Dome Reviewer: JJKD Date: 1-19-85

Chapter: Executive Summary Number: _____

Section: 2.2.3 Heading: Selection of the preferred site in the Gulf Interior Region, Page: 6, Paragraph: 2

The first point listed in favor of the Richton dome is that it is significantly larger than either Vacherie or Cypress Creek

The EA itself (and unnecessarily) raises some serious doubts about this by systematically referencing a report which shows a significantly different shape of the dome (LETCo, 1982 / ONWI-120) in many figures that present the dome outline at -2000 ft MSL (e.g. ~~Fig 3-2, p 3-2; Fig 3-3, p 3-3; Fig 3-4, p 3-4~~; Fig. 3-11, p. 3-22; Fig. 3-15, p. 3-29; Fig. 3-17, p. 3-36; Fig. 3-25, p. 3-63; Fig. 3-27, p. 3-70) ~~Fig 3-29, p 3-80~~ ~~as well~~ These figures also include a reference (Earth Technology, 1984a, Fig. 5), which does not give any information about the dome, and does not include a Figure 5.

(as well as Figure 3-2, p 3-3; Figure 3-6, p. 3-11; Figure 3-9, p. 3-19)

Another Earth Technology, 1984b, report (ONWI-???) discusses the problem of the dome geometry at length, and explains why the EA presents the dome shape given in the mentioned figures, and not the dome shape presented in LETCO, 1982.

It is recommended that DOE replaces all references Earth Technology, 1984a, Fig. 5 in the captions of the ~~mentioned~~ Figures ~~on~~ mentioned above, remove reference LETCo, 1982, except where appropriate for other needs, and include reference Earth Technology, 1984b. It might even

be desirable for DOE to briefly state within the EA why the dome ~~sta~~ geometry at -2000 ft MSL is given ~~B~~as it is, rather than mislead the reader who checks ~~f~~ LETCo, 1982, and finds a very different shape.

LETCo, 1982, Gulf Coast Salt Domes Geologic Area Characterization Report, Volumes VI and VII, ONWI-120, prepared for the Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH

Earth Technology, see Ertec

Ertec, 1984a, Annual Report - 1983 Potentiometric - level Monitoring Program, Mississippi and Louisiana, BMI/ONWI - 525, prepared for Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH

Ertec, 1984b, _____ BMI/ONWI - 5??, prepared for Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, OH

Selected Detail Comments

Site: WMEG/EA/ Richton Dome Reviewer: JJKD Date: 1-19-85

Chapter: Executive Summary Number: _____

Section: 3. Heading: THE SITE

_____, Page: 11, Paragraph: 2

The EA states that the potential for discovering additional oil and gas fields seems to be very low.

This summary does not include the fact that a substantial hydrocarbon show, 30 meters (100 feet) of tar sand already has been identified (Section 3.2.8.1), and that the assessment of low potential for future hydrocarbon reserves contradicts Karges, 1975, a reference cited in 3.2.8.1. Two quotes from Karges, 1975, might clarify the concern: "Future drilling should establish significant reserves on shallow salt domes" (last sentence of abstract), "Excellent heavy oil shows were seen in lower Cretaceous sands on the flanks of D'Lo, Richton, and Midway Domes" (p. 181, first paragraph).

It is recommended that DOE admit that hydrocarbon potential already is established.

Karges, H.E. 1975, "Petroleum Potential of Mississippi Shallow Salt Domes", Transactions of the Gulf Coast Association of Geological Societies, Vol. 25, pp. 168-181

Selected Detail Comments

Site: WMEG/EA/ Richton Dome Reviewer: JJKD Date: 1-19-85

Chapter: Executive Summary Number: _____

Section: 5 Heading: REGIONAL AND LOCAL IMPACTS OF REPOSITORY DEVELOPMENT Page: 14, Paragraph: 3

The last sentence of this paragraph states that about 10 million tons of excess salt would be removed from the site for disposal in an offsite mine.

This firm statement clearly contradicts the detailed ~~cond~~ discussion in Section 5.1.3.4, Salt Disposal, pp. 5-31/33, where it is concluded that "... the repository program has not advanced to the point where the final selection of a disposal method can be made..."

It is recommended that the contradiction between the statements in paragraph 3, p. 14 and Section 5.1.3.4 be removed, i.e. that the executive summary, Section 5, p. 14, not make a firm commitment to disposal of excess salt in a mine - unless that decision indeed has been made, in which case Section 5.1.3.4 also should say so.

Selected Detail Comments

Site: WMEG/EA/ Richton Dome Reviewer: JJKD Date: 1-19-85

Chapter: 3 Number: _____

Section: 3.7 Heading: CHAPTER 3 REFERENCES

Page: 3-140, Paragraph: ___

The next to last reference on this page reads "Earth Technology, see The Earth Technology Corporation" No "The Earth Technology Corporation" references are given Recommend that DOE change this line to: "Earth Technology, see Ertec"

Selected Detail Comments

Site: WMEG/EA/ Richton Dome Reviewer: JJKD Date: 1-19-85

Chapter: 3 Number: _____

Section: 3.7 Heading: CHAPTER 3 REFERENCES

_____, Page: 3-144, Paragraph: ____

References include two Law Engineering Testing Company 1982a, two 1982b.

It is confusing and time-wasting to ~~d~~ have to check two (long) references.

It is recommended that DOE correct reference numbering, (and references in text).