CONFIDENTIAL

MINING COMPANY RENEGOTIATION

1. We spoke. H/w requested memo.

A. Introduction

2. All three main mining agreements (Tsumeb, Rossing, CDM) and presumably the secondary ones (ex-SWACO, A-A Gold) are unsatisfactory.

3. To some extent modern mining legislation and (more particularly) modern mining tax legislation will set these problems right. But "some extent" (except on taxation) may be limited as retrospective application of some aspects of modern mining legislation to existing contracts would be fairly likely to be held to be unconstitutional.

4. Therefore case by case renegotiation is needed. Two levers exist:

   a. need by company for new mining rights (e.g. Tsumeb, perhaps Anglo)

   b. need by company to have clearly valid property right (the Constitution does not assert the legality of the 1966-89 regime thus any post-mandate revocation mining rights are arguably not protected).

5. The first case should be CDM. The reasons are partly because more historic anomalies exist and that - at Jwaneng - there exists a precedent and partly because De Beers/Anglo-American are the world mining group that takes the broadest and longest term perspective of its own interest with positive results in terms of its flexibility in

labour negotiations and of sharing of gross surpluses with the host government. Further, De Beers is committed to orderly market management (useful to all producers) which means it has a strategic interest in keeping Namibian diamonds in the CSO (Central Selling Organisation).

6. Parallel negotiations with Anglo American on the Karibib Gold Mine and its other interests (e.g. coal and uranium exploration) might also be useful. First, the Anglo/De Beers group clearly views their interests in Namibia as a package. Second, CDM is strategic and very profitable while the other interests are much less important, possibly only moderately profitable or relate to future, not present earnings. However, the specific issues to be negotiated are rather different than diamonds so that additional preparation (and probably advisers) would be needed.

7. Tsumeb negotiations should - with one special exception - be postponed. Consolidated Goldfields has the reputation of the most myopic and intractable of the major South African mining houses (with A-A/De Beers the opposite end of the spectrum). Base metal mining is only moderately profitable with poor short term prospects for improvement. But Tsumeb needs to open at least one major (in Namibian terms) new mine by 1993-95 to avoid a sharp output fall. It should be made clear that in granting mining rights and in assessing compliance with conditions, Tsumeb's speedy recognition of the mine workers union and negotiation with them in good faith (or its continued intransigence) will be crucial. Congold must have it made clear: "No recognition/no decent terms and conditions of employment - no new mines." Tsumeb's future profitability and the value of its present capital base requires new mines to replace falling

Tsumeb/Kombat production - Congold will accept recognition/negotiation if it is made clear (especially in confidential oral communications) it has to do so to get new mine open.

8. Rossing poses special problems. It is a totally post-1966 - pre-1989 mine. But RTZ genuinely does not seem to recognise this as relevant (Anglo/De Beers does recognise it). Further, RTZ is a relatively "tough" (myopic?) company globally in respect to environmental, labour and surplus sharing issues. And the present world uranium oxide market is weak. It is likely to remain so at least until the late 1990s. Rossing now needs RTZ's marketing experience/contracts more than RTZ needs Rossing's uranium oxide, albeit Rossing is still safely profitable. It would probably be desirable to delay renegotiation with them until after a successful conclusion with De Beers/A-A. The fact that Namibia may have 51% plus of voting power (is the "golden share" still extant and in government hands?) is more formally than practically relevant as RTZ runs the actual operations.

CDM

9. CDM wants:

   a. a clearly valid 25 year agreement (say 21-III-90 to 20-III-2015);

   b. a clearly valid extension to cover the upriver mine under development;

   c. a tax/royalty/equity sharing package which can be expected to be stable because reasonably acceptable over time to both parties;

   d. continued marketing of Namibian diamonds via the CSO.

It will _pay_ to get them. None of them is _per se_ against Namibian interests depending on the total package of surplus sharing. Therefore a basis for negotiation exists because interests overlap. This is _not_ to say interests are identical - De Beers/A-A want the highest share of profits/surpluses consistent with stability and preservation of those profits. So does Namibia! Within the ranges 60% to 80% to Namibia/40% to 20% to De Beers there is a direct difference of interest. But outside that range both sides would probably agree that the entire surplus scheme was at risk and therefore would be prepared to negotiate in the 60/80 - 40/20 ranges. Further, Anglo/De Beers is _not_ a philanthropic body - it is a long perspective, accommodation oriented, extremely competent, powerful, self-preservation focused capitalist profit maximising corporation. That means it will negotiate and will offer concessions if it sees to them as necessary but not that it will give anything away.

10. Namibia presumably wants:

a. to wipe out the anomaly whereby in practice part of the royalty goes back to the De Beers group as 'rent' for German concession rights;

b. to raise the average share of total surpluses going to Namibia from the apparent 60% to 65% range of the 1970s/80s in Namibia toward the 70% to 75% which appears to have held in Botswana;

c. to restructure the 70% to 75% package take among royalties, standard company tax, additional profits tax and probably dividends on an equity stake;

d. to ensure a "most favoured supplier" (i.e. lowest) discount to CSO on diamonds sold;

e. to secure an independent valuation check on diamonds rather than accept an unchecked buyer's valuation of De Beers/CSO as at present;

f. to institutionalise (contractually or by statute) a Namibian voice in long term deposit development and exploitation and of annual production;

g. to secure two or more Namibian government appointees (e.g. 1 Ministry and 1 Trade Union person) to the CDM Board (independent of the equity held by the Namibian government).

11. The complexity of the proposals needed to address the foregoing points varies sharply from point to point. Wiping out the old German concession rights and rentals is simple - do not include them in the new master agreement. Point 'b' in itself is simple - in practice it is keeping a running total on per cents from different sources. Point 'g' can and <u>should</u> be legislated - a statutory right for 2 government appointees (not necessarily public servants) to all substantial mining company boards as a source of access to information and to making Namibian needs/positions heard. (This does <u>not</u> abrogate property rights so does not fall foul of the Constitution.)

12. The last simple point is 'd' - negotiate a contract form for Namibian diamond sales to CSO at the lowest present discount now charged (check with Botswana as to what it is) and with a rider that if any

supplier is in the future given a lower discount this will then apply to Namibia (CDM) as well.

13. Independent or parallel valuation has been secured by Tanzania and Botswana. Their somewhat different structures should be examined. Possibly Namibia should both insist on adopting one approach or the other <u>and</u> of negotiating a joint process with Tanzania <u>or</u> Botswana to gain on economies of scale and already acquired lessons of experience.

14. De Beers will - up to a point - negotiate on determination of medium term prospecting/proving/development programmes and on annual to three year production targets for mines in a country. Clearly Botswana won additional output in the 1981-84 period, in part at the expense of South Africa and Namibia (where CDM has for over 60 years been run as a 'swing' mine with sharp output increases during booms and declines during slumps). A technical committee with access to CDM data and the duty to propose broad policy and output levels to the CDM Board (which may or may not accept them) is probably negotiable. What will prove harder is to ensure a way for Namibian government positions to have no real influence without <u>either</u> denying CDM and De Beers decision taking power (which is not negotiable) <u>or</u> giving rise to the likelihood of confrontation. (Discussion with Botswana to determine the modalities and process of its influence should be pursued. Tanzania's is pursued largely via the Williamson's Board of Directors but in the context of a 50-50 De Beers/Tanzanian public sector division of equity and voting power.) To be effective to Namibia, CDM production decisions must be linked to CSO quotas, i.e. CDM must (except in extreme crises) be able to

sell agreed production level. Then if world sales are slow CSO (i.e. De Beers-Swiss End) finances stocks not CDM.

15. Botswana's total take out of gross surplus (after interest, depreciation, production/marketing costs) over the 1980s has averaged 70% to 75%. Namibia's has been about 60% to 65%. (The difference may be wider if absence of independent valuation and/or higher level of CSO discount has reduced gross surplus relative to Botswana.) This is a reasonable target for negotiations. However, it is also necessary to consider how to structure the target. The probable list of sources are:

a. royalty (on gross value)

b. company tax at normal rate (on gross surplus less royalty);

c. additional profits tax (on that portion of post company tax profit above some set proportion of net worth or capital employed less borrowings);

d. withholding tax on dividends;

c. dividends on government shares.

It is not a matter of indifference on how to seek to rake in the 70% to 75% because certain structures would deter output and especially full use of reserves and others might make for wildly fluctuating state revenue. (A high - e.g. 15% to 20% - royalty would have the first defect and a low royalty plus low company tax plus low withholding tax plus high APT from - say - 20% on could have the second limitation.)

16. Royalty. A 5% royalty on gross output value would both guarantee a certain basic revenue and encourage some deferral of production when prices were very low. (Both points are less relevant to diamonds than to base metals, uranium oxide and gold but - presumably - Namibia seeks a uniform minerals tax structure?) Of this I suggest one-fifth (1% of gross output value) should be allocated to regional government of South for development purpose.

17. Standard Company Tax rate should be between 40% and 50%. (This should probably be economy wide but different rates by sector are possible, e.g. 50% minerals, 45% tourism, fishing, power, commerce, 40% agriculture, manufacturing, transport if specific reasons for differentiation exist. The one set out favours the three low tax sectors and assumes mining has high enough potential gross surpluses to provide incentive to invest at higher tax rates.)

18. APT should be at - say - 25% on those post tax profits above 20% or 25% on capital employed less borrowings. Here a series of problems arise:

a. should the 20% be cumulative, i.e. 15% in year one allows 25% in year two before APT? (Probably, yes.)

b. should capital employed be valued at historic cost or inflation adjusted? (Probably historic cost because of adjustment difficulties but if inflation is over 15% then 20% nominal before APT probably is inadequate for encouraging new investment.) The initial value could be 21 March 1990 book value plus net investment thereafter to effective date plus or minus negotiated adjustment.

c. capital employed must be defined to exclude financial assets surplus to operations, i.e. CDM cannot be allowed to lend to - say - De Beers (Switzerland) at 10% avoiding withholding tax on dividends and diluting APT by expanding the capital base.

d. how should depreciation be handled? 100% write-off or all prospecting-development-capital investment in year of spending is almost unique to mining and to old fashioned mining codes/tax regimes. A better shape might be:

- Prospecting/Exploration - 100% write-off in year of spending
- Development and Other Investment Spending - Capitalised until in production and then depreciated over - say - 5 years at 20% per year.

19. Withholding tax on dividends paid abroad - 15%. This is a fairly normal rate to apply to whole economy. Some such rate is usually negotiable in context of double tax arrangements.

20. Schematic example of government share before dividend contribution:

A.	Gross Value of Production	100%
B.	Less Royalty	5%
C.	Cost of Production/Interest, etc.	15%
D.	Allowable Depreciation	
	▪ Prospecting/Exploration - 3%	
	▪ Development/Other Investment - 12%	15%
E.	Gross Operating Surplus	
	(A - C, D) = 70%	
	Less Royalty 5%	
	= Taxable Income	65%
F.	Company Tax at 50%	$32\frac{1}{2}$%
G.	Post Tax Profit	$32\frac{1}{2}$%
H.	Capital Employed Less Borrowing	
	= 125 x 20% - 25 Before APT	25%
I.	APTable	$7\frac{1}{2}$%
J.	APT = 25% (J)	$1\frac{7}{8}$%
K.	Post Tax Profit (25% + $5\frac{5}{8}$%)	$30\frac{5}{8}$%
L.	Dividends (say)	30%
M.	Withholding Tax	$4\frac{1}{2}$%
N.	Total Taxes B, F, J, M	$43\frac{7}{8}$%
O.	Gross Operating Surplus	70%
P.	N/O = Government Share	$62\frac{1}{2}$%

21. The above is schematic. For real negotiations a computerised model with a base run on recent real CDM data and tests on range of possibilities should be set up and run.

22. The e.g. at Para 20 does not meet the 70% to 75% range. Indeed it happens to have same result as different combination of rates in 1980s gave.

23. The 62½% share can be raised by an equity stake. But this is relevant to the 70% - 75% target only if shares are free or below true value (if 70% - 75% is government share as government and it buys half equity at true value it should get 85% - 87½% because it should get half of equity yield as well as sovereign share of 70% - 75%). De Beers will 'concede' some free shares in a general renegotiation in some sense as payment for a 25 year mining right. *De facto* it gave 50% in Jwaneng. A possible target at CDM would be 25% (albeit an initial claim of 50% on Jwaneng precedent to give room to negotiate down might well be prudent way to start).

24. Rerun Schematic Model:

Addition To Government Take From Dividend (¼ times 30%)	+ 7.5%
Loss To Government Revenue Withholding Tax (¼ times 4½%)	-1.125%
Net Addition (% of Output)	6.375%
Total % of Output	50.25%
Total % of Gross Operating Surplus	71.79%

25. At the same time Namibia could seek an option to buy another 25% of equity at 5 times after tax profit averaged over 3 years before taking up option. That would take Namibia to 50% joint venture. De Beers will not willingly go further. This pricing would give a

discount (20%, even nominal, computed on past 3 years average profits is well above normal investment rates) but not a large enough for De Beers to resist root and branch. But depending on assumed rate of real return on other investments, the net share of surplus less the portion attributable to equity purchase at opportunity cost would be raised to 72.5% to 75%, i.e. significant but not huge.

Change Process

26. First get mining law/mining tax frame agreed presumably with advice of - inputs from Technical Adjustment Group of Commonwealth Secretariat. See to what extent enacting this reduces the coverage needed in company specific negotiations. For example:

a. statutory right to be involved in annual production level decisions and medium term development decisions would avert need to negotiate with each company. It wold not cover special problem of CDM securing agreement from De Beers (CSO) to buy that level of output.

b. statutory right to have two government appointed directors (e.g. one from Ministry and one from Trade Union) on each mining company board would take this out of company by company negotiations.

c. the same is true of the tax rates and of the depreciation regime. On face of it nothing different is needed for CDM in rates - the higher profit rates (and thus APT) plus negotiated "free" equity share (which would logically vary from company to company in accordance with value of mining right) would deal with differences.

27. Then identify what is left to negotiate with CDM:

a. what they want and Namibia is willing to offer;

b. what Namibia wants 'in return';

and set up

c. initial set of 'demands'/'offers' as a draft new contractual agreement;

d. a model (on computer) to test results of alterations to initial set;

e. a set of minimum demands below which Namibia will <u>not</u> go (and maximum offers above which it will not go).

28. Third:

a. enact the Mining/Mining Tax Laws;

b. serve formal notice on CDM calling for overall renegotiation and setting out main heads of 23-c (perhaps <u>not</u> the actual numbers proposed).

29. Fourth:

a. negotiate with CDM

b. if successful (including Cabinet approval) sign with CDM

c. and go on to similar exercise with Tsumeb.

(See Annex Note on Anglo Negotiations roughly parallel with or just after CDM.)

Negotiations

30. Three tier:

a. Cabinet - approve holding negotiations
- approve broad guide-lines for negotiations
- approve results of negotiations.

("Approve" includes revise, modify, reject.)

b. Minister - puts proposals to Cabinet for approval
- initials agreement (along with De Beers Chief Executive before it goes to Cabinet and CDM Board)
- directs/receives reports from head of Negotiations Working Group
- perceives and approves/changes recommendations for consultants

c. Working Group - Permanent Secretary Mines - Chairman
Senior Treasury Official
Senior Planning Commission Official
(These 3 should be Namibians)
- Legal Adviser
Economic Adviser (conceivably 2)
- Prepare articulated position to go to Minister
- Do actual nuts/bolts negotiation
- Report to Minister

(On tactics - group members should not contradict each other at sessions - unless as pre-arranged tactic! Either Chairman only talks or there is a pre-arranged division of topics and he calls on others to speak to them. All should pass each other notes - including suggesting to Chairman to call for recess if very serious problem arises!)

31. Probable best source:

TAG/C'wealth - who will listen to suggestions for specific persons -

32. Possible useful people

- Roland G. Brown - Tanzania 1960/72 largely commercial legal; C'wealth TAG 1974/8? on economics-legal teams; UN Centre TNCs 198?/90 - nominally retired (65). Has mineral experience. Probably available.

- Phil Daniel - Papua New Guinea/TAG massive mineral experience (base metals, gold not diamonds). Now IDS. Probably available.

- Roger Nellist - Now TAG. Extensive Hydrocarbon experience (including Tanzania). Probably available.

- Mike Faber - Ex various African governments and TAG. Now IDS. Diamond and base metal experience. Available.

- Al Noor Kassum - Lawyer and business economist. Retired Tanzanian minister minerals (about 65). Was Deputy Managing Director Williamsons Diamond's. Substantial negotiation experience. Is genuinely technically expert at strategy/overall approach level and readily uses more detailed modelling inputs. May be available.

- <u>Reg Green</u> - Political economist, more general policy experience than mining/hydrocarbons <u>per se</u> but some experience that sector. IDS. Only specifically Namibia knowledgeable one of the six. Probably available.

I believe TAG/C'wealth would be willing to use any of above. They could be relevant to general law formulation as well as negotiations. <u>Note</u> - not only good people in world! The are ones I know and can say I am sure would be good.

<u>Annex I</u> - <u>Anglo American Interests</u>

1. These include Karibib Gold, Aranos coal prospect, Namib uranium prospect, other prospects. Believe Karibib only significant operating mine.

2. General tax frame should fit here (with 5% royalty). On 'free' shares for mining right suggest 10%. Option to buy up to 40% more on same terms as for diamonds possibly might be worth seeking. Seems unlikely to be terribly attractive as gold price likely to be soft most of 1990s so not worth pushing very hard. For same reason APT <u>may</u> be negligible (need actual mining results to confirm/refute that).

3. Uranium and coal prospects pose special problems. Nobody is likely to develop until:

   a. <u>uranium</u> - oxide market turns up on trend basis. Very unlikely pre-1995; may not happen before 2000.

   b. <u>coal</u> - building of Trans Kalahari Railroad which in turn depends on world coal market prospects to justify Botswana selling 5 to 10 million tonnes a year. Unlikely to be before 1995 (decision to open mine/build RR) - 2000 (on stream) period. <u>Also</u> agreement on somebody building an Aranos to Trans Kalahari branch rail line.

   <u>But</u> it is just barely conceivable Aranos coal for Tsumeb complex and Windhoek use could be moved by road to present Gobabis branch, i.e. a 200,000 tonne/year mine vs 1.5 million tonne export mine linked with TK. A-A's views on the viability of such an option as well as the data and analysis underlying them should be sought

4. The above time factor raises special problems. Normally either a develop or surrender time limit or rising annual fees would force surrender long before 1995/2000 period. The purpose of such provisions is to prevent hoarding. Should Namibia consider special agreement with A-A?:

   a. ask for development to begin by 1992 and production by 1995 (might accept on small coal mine) and if not;

   b. if A-A surrenders grant it will be given right to meet best new offer to take up development until 2000?

5. Re Karibib a 25 year mining right 21-III-1990/20-III-2015 would seem to be what A-A will want. Re uranium/coal it will want to safeguard right to come back as soon as market renders development viable. First is also in Namibia's interest and second may be - A-A has spent significantly on exploration/prospecting and is unable to develop in current world markets, not hoarding.

6. More data needed - including what other prospecting/exploration A-A has done.

Annex II - Data Provision By Mines To Ministry

- Presumably new Mining Act will include requirements on data to be provided to Namibia:

  a. geological - prospecting - seismic, etc. data

  b. reports on work done - prospecting, exploring, development and costs

c. detailed geological/mineral and financial data on operating units

- These should be retroactive to date of prospecting/exploring licence on existing prospecting/exploration ones and to - say - 1986 on operating company data
- To do much good these data need Namibian (institutionally - may need to use 1 or more expatriates initially) team to review/interpret, advise on policy implications.

(I doubt retrospectivity here could be held to violate Constitution's property rights Clauses.)

Annex III - Prospecting/Exploration Licenses

1. These should from now on be time limited

e.g. i. prospecting for 3 years then surrender or conversion to exploration (with maximum size any one prospecting licence and smaller maximum for exploration);

ii. Exploration for 5 years with required expenditure programme (may be possible for prospecting too but more important at exploration stage) possibly also specifying certain physical parameters and then surrender or convert to development phase under mining licence again for smaller maximum area);

iii. development required phased programme and deadline for completion, entry into production.

2. On extant licenses two possibilities:

   i. void all post-1966 (Mandate Revocation) thru 1-V-89 licenses as void ab initio (probably consistent Constitution as it does not validate 1966/89) but accept applications for new licenses from holders with provision that these will be issued unless time limits already used up and will grant licenses only for the time provided under new scheme not already used under old licenses;

   ii. accept existing licenses but have punitive fee structure for long stay in prospecting or exploration phase, an approach used in Botswana to avoid concession revocations which would have breached Constitutional property rights provision. There is a solid body of global precedents that taxes which are general in form and do serve an identifiable public purpose are not challengeable on the grounds that they may reduce the value of property rights. (If a half-built mine exists that needs specific negotiations on "fish or cut bait" basis, i.e. agree development programme and production deadline or abandon right.)

3. There should be fees (rents) for each stage rising over time licence held and adjusted annually or every other year for inflation. Schematic, e.g. per square kilometre:

Year	Prospecting	Exploration	Development (Pre-Production Mining Licence)
1	R 1	R 5	R 100
2	R 2	R 10	R 100
3	R 4	R 15	R 100
4	R 8	R 20	R 100
5	R 16	R 25	R 100
6	R 32	R 50	(Entry Into Production Required)
7	R 64	R 100	
8	R 128	R 200	
9	R 256	R 400	
10	R 512	R 800	

(Extended scale to catch pre-existing licenses if these are not voided.)

These rates are suggestive or schematic.

On Prospecting/Exploration could allow 25% or 50% of expenditure to be offset against rent/fee. In case of active prospecting/exploration this would probably reduce revenue from fees and added cost to licence holder to nil.

Note - could have a basic R 2.5 per square km Prospecting/Exploration and R 25 per square km pre-production mining (development) to Local Government, i.e. Province. This would be in addition to schematic table and would have to be paid whatever the expenditure. It is in a sense an offset to disturbances such activities create for residents.

Desirable to get Botswana rates and rules to check out rates, sizes, periods, surrender requirements, spending programme criteria.

<u>Annex IV</u> - <u>Small Mines/Prospects</u>

1. The above provisions are <u>not</u> suitable for small companies and still less so for individuals. A special section of Mining Act will be needed to cater to them. Presumably <u>only</u> Namibian citizens and Namibian owned (defined in Act) small companies would be eligible and the allowable area of any site licensed under this section would be quite small. If such rights were sold to large or non-Namibian owned company, that would be subject to new owner securing appropriate licence under main Act sections.

2. Licenses should <u>not</u> be automatic. For instance, conservation, interests of farmers, etc. should be adequate reasons to deny licenses. <u>And</u> damage to crops, improvements, livestock by prospecter/explorer should be recoverable from him by civil claim and also grounds for criminal action. Several thousand person gold rushes on crowded land (e.g. Okavango Valley) are a 'development' Namibia does <u>not</u> need. (This <u>applies to big companies</u> too of course.)

3. If a mining licence is given, then miner (individual/company) must buy out existing land title/use right and improvements for area under mining licence. (<u>Who</u> is to be paid for this in communal areas? For crop or house areas I would advise the household using them. For communal grazing land the district level local government?) <u>Also applies to big companies.</u>

4. If agreement cannot be negotiated on #3 within 3 months there should be a speedy/low cost arbitral mechanism provided. (Neither miner coercion nor flat refusal to negotiate by present user is in Namibian interest.)

5. Tanzania (about 1988) is an example of a country with separate provisions for small miners of this type. I believe their section is a TAG model.

Annex V - **Water**

1. Mining licence applications should be required to:

   a. state how much water needed

   b. how it is to be secured

   c. that application to drill/build pipeline/buy from SWAWEK (NAWEK?) has been made and indication in writing from SWAWEK (NAWEK?) that in principle (e.g. subject to specific agreements timing, price) it is willing to licence mines' own production or to sell it water.

2. Mines/Water will need to liaise on criteria Water will use and on maximum period allowed to Water to respond yea/nay.

3. A simplified procedure may be needed for small mines.

Annex VI - **Ecology/Pollution/Environmental Health**

1. These are key sections for general Mining Act. This is especially true in a desert environment and low or seasonal flow water and limited artesian sources. For example, tolerance levels for mercury or radioactive pollution of soil or water should be near nil.

2. What standards to apply is less than self-evident. UNEP, WHO and ILO advice may be needed. Domestically, Health and Trade Unions and Local Government should be consulted.

3. Studies on Tsumeb (sulphur emissions) and Rossing (air and water pollution, future cancer deaths especially of workers and how to lower) are needed urgently. UNEP/WHO advice needed as well as Health, Trade Union, Local Government input. Will need largely externally staffed expert studies preferably funded by an international agency (perhaps UNEP-WHO-ILO jointly, each funding own or designated staff plus share of overheads?).

4. #3 should lead to negotiating limited exceptions to basic Act provisions for Tsumeb, Rossing. It is doubtful they can meet any likely set of standards for new mines. But if (as is almost certain) glaring problems are shown some improvements and a strict liability clause (especially cancer among Rossing workers/ex-workers and those living downwind from mine) are needed.

For example. Unless it demonstrably would render smelter uneconomic, Tsumeb should be required to put in sulphur extraction unit and quit 'spraying' it out. The sulphur, by the by, is saleable so operating cost boost can be fairly low but capital cost of ça $0.30 to 0.50/pound once for all cannot be recovered from sulphur proceeds.

- RHG
Falmer
8-VIII-90