

GOVERNMENT OF ODISHA
STEEL AND MINES DEPARTMENT

OFFICE ORDER

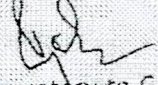
No. 4132 /SM, Bhubaneswar, dated the 8th May, 2013

Sub: Guidelines for DGPS/ETS survey of coal block and preparation of digital geo-referenced map.

Steel & Mines Department has issued office order no.1278 dated 24.02.2012 requiring submission of cadastral based digital geo-referenced coal block map generated through DGPS/ETS survey along with application for grant of PL or ML. It was indicated therein that detailed guidelines for preparation aforesaid maps would be issued later on. Accordingly, after consultation with Odisha Space Application Centre (ORSAC), the State Nodal Agency for such purpose, the State Government has been pleased to approve the following guidelines:

1. Odisha Space Application Centre (ORSAC), the State Nodal Agency will carry out / vet the DGPS/ETS survey of the coal-block boundary including preparation of cadastral based geo-referenced coal-block map.
2. Coal-blocks where demarcation has already been carried out prior to issue of these guidelines may be taken up first for verification/vetting by ORSAC, followed by other cases.
3. DGPS/ETS survey and preparation of cadastral based geo-reference map of each coal block may be undertaken by ORSAC itself or ORSAC may engage its empanelled agency to undertake the job under its overall guidance.
4. Block-boundary of coal-blocks where demarcation has been completed by adopting conventional survey procedure will be verified through DGPS/ETS survey by ORSAC & such verified/vetted coal-block boundary will be considered as final & frozen. The existing coal-block boundary of adjacent blocks, if any, should be taken into consideration & the boundary of the new coal-blocks may be adjusted if necessary.
5. Representatives of the concerned coal-block allocatee(s), CMPDI, Deputy Director of Mines, Divisional Forest Officer and Tahasildar should remain present during field-survey and certify the digital geo-referenced block-boundary maps with land schedule. Allocatees of coal-blocks having common boundary should also be notified to remain present during field demarcation.
6. Digital geo-referenced block-boundary maps with land schedule superimposed on high resolution satellite imagery should be prepared for each coal-block and submitted along with application for grant of PL or ML.
7. The detailed procedure for the aforesaid exercise including preparation of maps is given at Annexure-A.

By Orders of Governor


Principal Secretary to Government

**Procedure for DGPS/ETS Survey of Coal Block and Preparation
of Digital Geo-referenced Map**

Coal-Blocks are allocated by the Ministry of Coal, Govt. of India and the boundary of such blocks is generally marked on toposheet or geological plan or location plan, certified by CMPDI. The said boundary plan may be given in different co-ordinate system (Lat/Long, National Coal Grid, UTM and Local grids) marked on the plan. The coordinate system shown on the plan could be in terms of gridlines (Northing & Easting reference) or in terms of details of co-ordinates of block boundary corners marked on plan. The coordinates so given need to be converted into UTM coordinates so that the block-boundary could be shown on Survey of India toposheets.

Since the allocatee(s) of the coal-block are mandated to submit digital maps showing the geo-referenced block-boundary of the coal-block superimposed on high resolution satellite imagery while submitting application for grant of PL or ML, the said digital geo-referenced map will be prepared through ORSAC on the basis of certified map of coal-block provided by CMPDI. For this purpose, two categories of coal-block cases may be required to be covered : one where demarcation has been carried out through conventional survey method and processed as per laid down procedure prior to issue of these guidelines (Category-A) and others where demarcation on the ground has not been initiated (Category-B).

The procedure for preparation of such digital geo-referenced block boundary map shall be as follows:-

For Category-A Coal Blocks:

1. Coal-block map prepared on the cadastral base will be digitized and geo-referenced to prepare digital geo-referenced block boundary map. DGPS surveyed ground control points should be used for geo-referencing. Additionally, geo-referencing should also be done on satellite imagery through the process of feature registration.
2. Geo-coordinates of boundary pillar positions as shown on the map will be derived from the geo-referenced map.
3. Pillar positions will be staked out in the field on the basis of derived coordinates, fixed on the ground and monumented, replacing all pillar positions so fixed and monumented through conventional survey method already carried out. Forest block occurring within the coal-block boundary will also be demarcated on the ground with posting of

pillars. Staking out of pillar positions will be done through DGPS/ETS survey.

4. Representatives of ORSAC, CMPDI, DDM, Tahasildar, DFO, allocatee(s) of the coal-block concerned & the adjacent coal-blocks, if any, should remain present during the process of staking out & fixation of pillar positions and would certify such re-demarcation.

For Category-B Coal Blocks:

1. CMPDI certified map drawn on toposheet will be demarcated on the ground on the basis of latitude and longitude shown in the CMPDI certified map. Since CMPDI certified map is drawn on 1:50000 scale toposheet, resultant ground demarcation will be considered tentative.
2. Demarcated boundary as above with minor deviations for the purpose of being co-terminus with adjacent block boundary or convenience of pillar location will be DGPS/ETS surveyed to finalize the block boundary. Forest block, if any, occurring within the coal-block boundary will also be demarcated on the ground with posting of pillars. Pillars of prescribed dimensions and specifications will be posted at DGPS/ETS surveyed points by the allocatee.
3. Representatives of ORSAC, CMPDI, DDM, Tahasildar, DFO, allocatees of the coal-block concerned & the adjacent coal-blocks, if any, should remain present during the process of boundary demarcation and DGPS survey as spelt out in the steps 1 & 2 above.
4. Cadastral sheets covered under the block boundary will be geo-referenced and mosaiced if necessary. DGPS surveyed ground control points will be used for geo-referencing. Additionally, geo-referencing should also be done on satellite imagery through the process of feature registration.
5. DGPS/ETS surveyed block boundary vector will be superimposed on the geo-referenced cadastral sheet(s) and land schedule coming within the block boundary will be extracted along with area.
6. Land schedule on the basis of ROR should also be prepared and compared with the land schedule extracted as at step-5 above. Since cadastral sheets were prepared long back using conventional survey method, some differences in area are likely to be encountered with. If such difference exceeds 5%, land schedule prepared on the basis of ROR, should be thoroughly re-checked. However, all statutory settlements, including land acquisition, have to be finalized on the basis of ROR land-schedule.

7. Digital geo-referenced block boundary map along with land schedules should be certified by ORSAC, CMPDI, DDM, DFO and Tahasildar concerned.

Application by Coal Block Allocatees to ORSAC:

All coal-block allocatees should apply to ORSAC for preparation of digital geo-referenced block boundary map. The coal-block allotment order of Ministry of Coal, GoI and CMPDI certified coal-block map should be submitted along with application. Information relating to other coal-blocks having common boundary should also be furnished by the allocatee.

Cost of DGPS/ETS survey & Preparation of Map:

The allocatee shall bear all the cost/expenses associated with DGPS/ETS survey & preparation of digital geo-referenced block map as per estimate submitted by ORSAC.

DGPS/ETS Survey and Certification of Map:

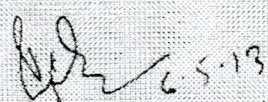
ORSAC may itself undertake DGPS/ETS survey or engage its empanelled agency to do the job under its guidance. However, final map should be issued under certification of ORSAC.

Technical Guidelines for DGPS/ETS Survey:

ORSAC shall issue technical guidelines to its empanelled agencies regarding the manner in which DGPS/ETS survey will be carried out.

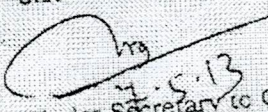
Survey Schedule:

ORSAC will draw up a survey schedule, coal block-wise and communicate it to CMPDI, Director of Mines and the concerned Collector, DDM, Divisional Forest Officer and Tahasildar as well as the concerned allocatee(s) of the coal-block & the adjacent coal-blocks, if any. These authorities or agencies should depute their respective representatives to the field during the field survey.


Principal Secretary to Government
Steel and Mines Department


Memo No. 4133 /SM, Bhubaneswar, the 8-5-2013

Copy forwarded to the Private Secretary to Hon'ble Chief Minister/ the Private Secretary to Hon'ble Minister, Steel & Mines / the Private Secretary to the Chief Secretary, Odisha / Finance Deptt/ Law Deptt/ Revenue & D.M Deptt/ Forest and Environment Deptt / Industries Deptt / Energy Deptt / Science & Technology Deptt /R.D.C. (ND), Sambalpur / Collector Angul, Sambalpur, Jharsuguda, Sundargarh/ Director of Mines, Odisha / Director of Geology, Odisha / C.M.D, IDCO /C.M.D, IPICOL/M.D,OMC Ltd./PCCP, Odisha /PCCP(wildlife), Odisha /CCF(N)/ DDM, Talcher / Jharsuguda / Sambalpur / Rourkela / Concerned D.F.O/ Tahasildar of Coal bearing districts, for information and necessary action.


7-5-13
Under Secretary to Government


Memo No. 4134 /SM, Bhubaneswar, the 8-5-2013

Copy forwarded to the C.M.D., CMPDI, Ranchi/C.M.D., M.C.L. Burla, Sambalpur / Regional Director, RI-VII, CMPDI, /ORSAC, Bhubaneswar for information and necessary action.


7-5-13
Under Secretary to Government

Memo No. 4135 /SM, Bhubaneswar, the 8-5-2013

Copy forwarded to Head State PMU, Directorate of Mines, Odisha with instruction to hoist the above Office Order No. 4132 dated 8-5-2013 in the Department website for information of all concerned forthwith.


7-5-13
Under Secretary to Government

POINT NO-V


ANNEXURE-II


v. As per DSS analysis of the KML file submitted with the proposal, the area of the entire mining lease is 1098.16 Ha, whereas the area of the lease as per the mining plan is 1111.85Ha. This needs justification and submission/uploading of correct KML file.

It is submitted that the KML file showing the entire Mining Lease of 1098.16ha was inadvertently uploaded with the forest diversion proposal instead of the KML file of 1102.14 ha which is now being uploaded in Form A, Part-I on PARIVESH PORTAL and submitted for your consideration.

COMPARATIVE STATEMENT OF LAND

SI No	Kissam of land	Lease Area As per Mining Plan 1111.85Ha (area in Ha)	Lease area as per DGPS Map 1102.14Ha (area in Ha) for which KML file has been uploaded
1	Private/tenancy land	696.95	689.87
2	Govt. Non-forest land	289.66	287.14
3	Govt Forest land	125.24	125.13
	Total	1111.85	1102.14


 11/05/2023
 General Manager
 Subhadra Area
 एम सी एल, सुभद्रा क्षेत्र
 General Manager
 MCL, Subhadra Area


 11/05/23
 SO(E&F)
 Subhadra Area
 Staff Officer(Survey)
 MCL, Subhadra Area