

Recommended Project Submittals for NOI's, Operations and Drilling Plans for Exploratory Geothermal Drilling

Follow regulatory requirements outlined in 43 CFR 3251 – Exploration Operations: Getting BLM Approval and 3261 –Drilling Operations: Getting a Permit.

3251.10 Do I need a permit before I start exploration operations? Yes, BLM must approve a Notice of Intent (NOI) before you conduct exploration operations. The approved NOI, including any necessary conditions for approval, constitutes your permit.

3251.11 Includes all steps required to submit a NOI to BLM, see detail below.

Complete a SF 3200-009, NOI to conduct Geothermal Resource Exploration found at www.blm.gov/FormsCentral, keyword search “Geothermal”.

If your exploration plan includes building roads, pads and flow testing of wells then all parts for 3260 including an Operation Plan and Drilling Program must be completed (3261.15). This can be submitted with the NOI.

3261.12 Includes all steps required to submit an Operations Plan for Drilling, see detail below.

3261.13 Includes all steps required to submit a Drilling Program, see detail below.

A specific Drilling Permit (GDP) SF 3260-002 must be submitted for each well separately after approval of the NOI, Operation and Drilling Program.

If any plan needs to be amended and/or changed a Sundry Notice SF 3260-003 must be completed and approved by the BLM before any action is taken.

Please see the attached checklist to ensure that everything required by the CFR is included.

The following are recommendations set up by the BLM for project submittals for Operations Plan.

- **Detailed** description of equipment to be used and including staging areas and lay down areas;
- Length and width of access roads and any road turnouts to be developed or maintained, culvert designs and placement, cross country access roads (if cross country, how many trips across the road will be taken)(Use gold book standards for roads and culvert design);
- If possible, photographs of the equipment to be used and photos of the disturbance created by the equipment;
- Estimate of acres to be disturbed, including dimension of disturbance (e.g. pit sizes);
- Hard copy and electronic copies of map that includes: MTRS, scale, legend, land status, lease boundary, location of disturbance, existing and proposed roads, overland travel

routes, point data (where receivers, or other equipment will be placed, location of laydowns and staging areas, contour maps, 1:24,000 scale, overview map of appropriate scale, title;

- Shape file with metadata (including data projection, who created map, and date of creation);
- Pad and road source of material (construction aggregate source);
- Water source documentation granting approval for use from that source. (Cannot conduct adequate analysis without this information.);
- Directional drilling (could affect royalty determinations, Kettleman number on GDP);
- Sump concerns (Idea – one larger sump for future flow testing and construct temporary pipelines);
- Surface ownership including other surface management agencies USFS, BOR;
- ROWs required or not (realty specialist can assess the need for a ROW);
- Description of the environmental protection procedures Best Management Practices (BMPs);
- Reclamation plan addressing
 - o Observation wells and pads:

Recontouring of roads back to original contour, seeding, controlling noxious weeds, and may also include other techniques to improve reclamation success, such as ripping, scarifying, replacing topsoil, constructing waterbars, pitting and barricading, and reseeding measures.

- o Injection & production wells and pads:

Painting of facilities with appropriate standard environmental colors (CC-001 June 2008). Recontouring of roads back to original contour, seeding, controlling noxious weeds, and may also include other techniques to improve reclamation success, such as ripping, scarifying, replacing topsoil, constructing waterbars, pitting and barricading, and reseeding measures.

- o Final reclamation of roads and pads:

See examples in the gold book and BLM BMPs website.