



Fei Duan  
03/09/2007 02:11 PM

QA: N/A

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To: Gregory Mitchem/YM/RWDOE@CRWMS  
cc: Mark Johnson/YM/RWDOE@CRWMS, Michael Anderson/YM/RWDOE@CRWMS  
Subject: Re: Fw: SEIS Support

JS 9/12/07

LSN: Not Relevant - Not Privileged  
User Filed as: Excl/AdminMgmt-14-4/QA:N/A

Gregory,

The stainless steel ground support components for emplacement drifts consist of perforated steel sheets, friction-type rock bolts, and bearing plates. These components, upon installation, will have one side facing the air and the other side facing or touching the rock. By taking the exposed surface area as that facing the air, the exposed surface area of the stainless steel ground support components is estimated as the following:

- For perforated stainless steel sheets, the total exposed surface area is calculated to be equal to 802,755 sq. meters out of 1,008,538 sq. meters (installed square meters). The difference is due to overlapping among installed steel sheets.
- For bearing plates, the total exposed surface area is calculated to be 12,225 sq. meters.

QA:NA

- For friction-type rock bolts, the total exposed surface area is calculated to be 276,376 sq. meters. This total area is all inside boreholes, and will not be seen from inside the emplacement drifts.

Therefore, the grand total of the exposed surface area of the stainless steel ground support components that can be seen from inside emplacement drifts is estimated to be equal to 814,980 sq. meters (= 802,755 + 12,225) or about 815,000 sq. meters.

Thanks.

Fei

John Que 03/13/2007 11:39 AM

To: Gregory Mitchem/YM/RWDOE@CRWMS  
cc: Janice Roberson/YM/RWDOE@CRWMS, Lauralee Schwartzwalter/YM/RWDOE  
Subject: Re: Fw: SEIS Support 

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At this time, Surface Facilities does not envision any stainless steel component that will expose to soil. All indications as of today are that there will be no buried alloy piping. The preliminary Material Selection Guide (as issued by the Mechanical Process Functional Group) currently does not indicate any such requirements. Underground piping for de-ionized water is identified as PVC in the Material Selection Guide.

The Wet Handling Facility do have stainless steel pool liners, but they are isolated from the soil by a very thick concrete wall.

Electrical/I&C do not anticipate using stainless steel where it may potentially contaminate the soil upon decomposition of alloy elements such as chromium and nickel.

Regarding architectural stainless steel materials in buildings, the only items that may have an exposed stainless finish are door hardware components (hinges, locksets, latchsets, strikes, etc.). Stainless steel fasteners and other miscellaneous items are insignificant or nonexistent for the type of construction we are anticipating.

Surface Facilities does not plan on using any stainless steel in ground support structures.