

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

- - - - - x

IN THE MATTER OF: :

MUDDY RUN PUMPED STORAGE PROJECT : Project No.

: 2355-011

- - - - - x

Muddy Run Visitor Center
172 Bethesda Church Road West
Holtwood, PA

Wednesday, June 10, 2009

The above-entitled matter came on for a scoping meeting, pursuant to Commission Order, at 7:05 p.m., John Smith, Project Coordinator, presiding.

1 P R O C E E D I N G S

2 EVENING SESSION

3 (7:05 p.m.)

4 MR. SMITH: Welcome to the Federal Energy
5 Regulatory Commission's Scoping Meeting for the Muddy Run
6 Pump Storage Project, FERC Number 2355.

7 I'm John Smith, I'm a Fish Biologist at the FERC,
8 and the Project Coordinator for the Muddy Run Project. And
9 if we could just go through the rest of the FERC Staff here,
10 I'll let them introduce themselves and say what resources
11 they will be working on.

12 MR. KARTALIA: I'm Steve Kartalia. I'm a
13 Fisheries Biologist at FERC. I'll be working on water
14 resources.

15 MS. MUPRHY: Hi, I'm Kristen Murphy with FERC,
16 and I'll be working on threatened and endangered species.

17 MR. BAUMMER: John Baummer from FERC. I'm a
18 Fisheries Biologist. I'll be working on water resources.

19 MR. MAKOWSKI: I'm Paul Makowski. I'm a Civil
20 Engineer. I working on soil erosion, sediment control, and
21 economics.

22 MR. PALSO: I'm Nick Palso, and Outdoor
23 Recreation Planner. I'll be handling recreation, historical
24 resources, land use, and aesthetics.

25 MR. DAVIDSON: Sam Davidson. I'm a recreation

1 planner, as well. I'll be doing the same thing as Nick,
2 here.

3 MR. SMITH: We've got some folks from Exelon,
4 also. Colleen?

5 MS. HICKS: I'm Colleen Hicks, the Licensing
6 Manager for Exelon. We have a number of people here
7 tonight.

8 MS. KANKUS: I'm Robbie Kankus, the Engineering
9 Manager.

10 MS. MARTINEZ: Alexis Martinez, for Exelon.

11 MR. SULLIVAN: Tom Sullivan, the Consulting Lead
12 for Exelon.

13 MR. K. SMITH: Kirk Smith, Consultant for Exelon.

14 MR. NEWBAUM: Dwight Newbaum for DRC, Consultant
15 on water and recreation management.

16 MR. J. RYAN: Jay Ryan, with the law firm of Van
17 Ness Feldman, Outside Counsel.

18 MR. A. RYAN: Al Ryan, Outside Counsel for
19 Exelon.

20 MS. TREAT: Marianne Treat, Communications,
21 Exelon.

22 MS. McCLURE: Betsie McClure, Communications for
23 Exelon.

24 MS. BALK: Kim Balk, Exelon Power,
25 Environmental.

1 MR. JUDGE: Bob Judge, Exelon Generation,
2 Internal Affairs.

3 MR. MATTIE: Bob Mattie, Exelon Environmental.

4 MR. PLYMOUTH: John Plymouth, Van Ness Feldman.

5 MR. VOLPE: Public Affairs, Exelon.

6 MR. SMITH: We've got everyone.

7 (Slide.)

8 MR. SMITH: We have a brief presentation for you,
9 first, and then if anyone has any comments they would like
10 to make, give those to us after the presentation.

11 We'll go through some introductory remarks,
12 describe the Commission's licensing process, the purposes of
13 the Scoping Meeting. Exelon will give a brief overview of
14 the Muddy Run Project, facilities and operation.

15 We'll explain where we have identified issues,
16 and the proposed studies, to date. We'll go over some
17 important milestones, and then we'll open it up for
18 questions and comments.

19 I guess -- has everyone registered? If not, if
20 you could just sign in on the way out, later, so we can keep
21 track. We have a Court Reporter with us, and we just ask
22 that if you would like to speak, that you state your name
23 and affiliation, so that the Court Reporter can attribute
24 your comments directly to you.

25 And the minutes of the meeting will appear in

1 FERC's official record for the Project.

2 You can also submit written comments, and the
3 instructions for filing written comments, can be found in
4 the Scoping Document. I think it's page 30. It's also --
5 you can also submit them electronically, and those
6 instructions in that document, also.

7 Now, I'll try to explain the mailing list. We
8 got -- we sent out the scoping document to everyone on the
9 FERC's official mailing list, as well as Exelon's
10 distribution list, but any future mailings from the -
11 Commission, will only go to those people and addresses that
12 are on FERC's official list.

13 So if you are interested in receiving hard copies
14 from us, take a look at the mailing list at the back of the
15 scoping document, and if you would like your name added,
16 follow the instructions. It's page 39, and we can get your
17 name added.

18 There's also e-subscription. If you'd rather
19 just get notified electronic, I think the instructions are
20 on page 39, also, to e-subscribe to this document.

21 We've got copies up front also, of the licensing
22 flow chart, extra copies of the scoping document, and some
23 other handouts, as well.

24 Exelon will be following the Commission's ILP,
25 which is Integrated Licensing Process, for its pre-filing

1 activities. They filed their Notice of Intent and pre-
2 Application document on March 12th.

3 Right now, we're in the scoping phase, and, over
4 the next year, they'll be developing their study plan,
5 submitting it to the Commission by the end of the year for
6 approval.

7 Once the study plan has been approved, over the
8 next one to two years, they will conduct the environmental
9 studies and develop a final License Application. The
10 Application is due -- I think it's August 31, 2012.

11 Once the Commission Staff has reviewed the
12 Application and find that it's adequate, we would issue a
13 Ready for EA Notice, soliciting comments, terms and
14 conditions, restrictions, and then conduct our NEPA
15 Analysis.

16 At the present time, it's our intent do to an
17 Environmental Assessment. Once the Environmental Assessment
18 is completed, we would expect that a decision on licensing
19 would come before the expiration of the existing Muddy Run
20 Project license, which would be August of 2014.

21 Now, the scoping process is what we're in right
22 now. One of the responsibilities of the Commission, is to
23 license non-federal hydroelectric projects, and under NEPA,
24 we're required to disclose the environmental effects of
25 those licensing actions.

1 So the scoping process is where we begin
2 identifying what the potential effects might be, and we
3 issued our scoping document on May 11th. It includes a
4 description of the existing facilities and Project
5 operations.

6 It has a preliminary list of resources that might
7 be affected by the Project, and also provides information
8 from stakeholders. It includes a pre-filing process plan
9 and a schedule for completion of the NEPA document.

10 Now, you all are well aware of where we're
11 located. We're in the Lower Susquehanna Watershed. We're
12 also scoping the Conowingo Project this week. Our site
13 visit is scheduled for 9:00 a.m. tomorrow, and we'll hold
14 another public meeting tomorrow evening, and then a Joint
15 Agency Meeting at 10:00 a.m. on Friday.

16 Later this Summer, we're anticipating scoping
17 meetings and site visits at least at the York Haven Project,
18 and that will probably be the last week of August.

19 York Haven filed a Notice of Intent and pre-
20 Application document on June 1st. The Holtwood Project
21 currently has an amendment proceeding pending at the
22 Commission, and I believe they're asking for an extension of
23 their license term.

24 If that is granted, then they would not be coming
25 in for relicensing at this time, so we wouldn't be scoping

1 that Project this Summer. If it's not granted, then the
2 Holtwood Project also doing this Summer, an NOI, and it is
3 our intent right now to do a multi-Project NEPA document,
4 once all of these Applications have been filed for 2012, so
5 we're offering that up for comments from the stakeholders,
6 as well.

7 At this time, I'd like Exelon to give a brief
8 Project overview on the Muddy Run Project.

9 (Slide.)

10 MS. KANKUS: Good evening, I'm Robbie Kankus, the
11 Engineering Manager for Conowingo. You can go ahead to the
12 next slide.

13 (Slide.)

14 MS. KANKUS: As John described, the Susquehanna
15 River Basin is a very large basin, and we're at the lower
16 portion of it, so, in our area, we're dealing with river
17 flows from around 1700 cfs, to, when Agnes occurred in '72,
18 over one million cfs.

19 Muddy Run sits between the Holtwood Project and
20 the Conowingo Project. Next slide.

21 (Slide.)

22 MS. KANKUS: This shows the relationship up and
23 down the River, between those projects.

24 (Slide.)

25 MS. KANKUS: Just for reference, so everybody

1 knows where we are, the little yellow arrow points to YOU
2 ARE HERE, and they have a YOU ARE HERE up there, but I
3 wasn't talented enough to get it up there, but this gives
4 you a good idea of the reservoir.

5 If you look below the center, the powerhouse is
6 down below, and then the Conowingo River, is here. Those
7 are the two bodies of water that we use for the pump storage
8 facility.

9 (Slide.)

10 MS. KANKUS: As we said, we're located in
11 Pennsylvania. The Project originally started in 1964.
12 There are currently eight units, rated at a total of 1072
13 megawatts.

14 Basically, this is a peaking station, in the
15 sense that it generates electricity when demand is high, so
16 it's not base-loaded, as some large coal or steam plants
17 would be. We pump when the electric demand is lower.

18 That's because we are less efficient at pumping,
19 therefore, we take advantage of lower energy prices to pump
20 up from the Conowingo River to the upper reservoir.

21 The operating license was issued by FERC, and
22 that's why we're here. That expires in 2014. Our power
23 reservoir top elevation, for those who are interested,
24 varies by about 50 feet, between generation and the pumping
25 load, so we use about 50 feet of water when we generate, and

1 then we fill that back up again.

2 Also, not really identified earlier on this, but
3 Conowingo Pond also supports the Peach Bottom Power Station,
4 which Exelon runs. That is a cooling body for that.

5 Power and non-power resources affiliated with the
6 project, is about 6800 acres of land that are in a variety
7 of different uses. There's marinas, boat launches, islands,
8 parks, and visitor centers, and some of the lands also reach
9 out to state agencies for their use as game lands.

10 Upstream, as I said earlier, we have Holtwood,
11 and, farther up, is Safe Harbor, and then York Haven, so
12 these are dams for which we are a pump storage facility,
13 next to last down the River.

14 (Slide.)

15 MS. KANKUS: How we basically operate, is, we
16 have the upper canal area, the upper power reservoir. We
17 have four pen stocks where our cylinder gates sit. This is
18 how we can close water off, if we don't water down there,
19 but, basically, these are the intake structures.

20 They are about 400 feet long, going down from the
21 reservoir, through the side of the hill, down to the power
22 station. They are used in two ways: One, to pump water up,
23 and one to let water back down to the turbines.

24 (Slide.)

25 MS. KANKUS: This is our main operating floor.

1 This is mostly our switch gear. The switch gear in the pump
2 storage plant, is a little more complicated than any
3 straight generating station.

4 The switch gear has to be able to put power out,
5 and power back into it.

6 (Slide.)

7 MS. KANKUS: If you look at the Muddy Run turbine
8 generator cutaway, the parts of the plant we're talking
9 about, the main thing is the turbine runner. This would be
10 similar to what you would think about in a horizontal
11 turbine for a steam plant.

12 Here, we call it the runner, because it happens
13 to show the blades at the bottom, pretty much a circular
14 water wheel. Think about taking a water wheel from a mill
15 and turning it sideways and that would be about it.

16 The wicket gates control speed on the units, and
17 those primarily make up the turbine area. We have a shaft
18 that connects it to the generator, which has a stator and
19 rotor. Everybody remembers that from their 6th grade
20 Italian class.

21 (Slide.)

22 MS. KANKUS: This is an outside view of our power
23 plant. We do not have a large powerhouse, for those of you
24 are familiar with it. There's indoor turbines, but ours sit
25 outside. We remove the domes for maintenance, and remove

1 the rotors, put them in another building for work on them,
2 the conical building there.

3 To the right, you can just see the River out that
4 side. To the left is our substation area, and the large
5 cranes we use for maintenance.

6 (Slide.)

7 MS. KANKUS: The powerhouse roof is where we have
8 our four transformers.

9 (Slide.)

10 MS. KANKUS: And the best thing we have, is great
11 view of the River at sunset.

12 Any questions about operations?

13 (No response.)

14 MS. KANKUS: Back to you, John.

15 (Slide.)

16 MR. SMITH: I'm not going go through al of our
17 issues that we've identified, today, but they're on pages 22
18 through 27 of the scoping document. For these resources, I
19 would encourage you to just take a look at that list and let
20 us know if you agree with those issues or think there are
21 some missing ones, or if some of them could be removed from
22 the list.

23 (Slide.)

24 MR. SMITH: At this point, Exelon has identified
25 several studies they intend to conduct as part of the

1 relicensing. They have also indicated that they would be
2 developing a recreation plan and a shoreline management
3 plan. Next.

4 (Slide.)

5 MR. SMITH: In addition to getting comments on the
6 resource issues, this is also the time to file study
7 requests. The Commission has identified seven study request
8 criteria that must be met for anyone filing a study request,
9 and those criteria are explained in more detail in Section
10 5.9 of the regs.

11 Basically, for anyone requesting a study, you
12 need to identify the goals and objections; consider existing
13 resource management goals and the public interest; explain
14 why the existing information is not adequate to address the
15 resources issues.

16 There must be a nexus to the project operations,
17 and you must explain that the methodology is consistent with
18 accepted practice and give some consideration to the level
19 of effort and cost of the study and why alternative studies
20 would not suffice.

21 (Slide.)

22 MR. SMITH: Here are some important milestones:
23 The study requests and comments on scoping, are due July
24 10th.

25 Exelon will be preparing a proposed study plan by

1 August 24th, and hold study meetings by September 23rd.

2 Comments on the proposed study plan, are due in
3 November, then a revised study plan would be submitted to
4 the Commission on the 22nd of December, with a determination
5 made by the Office Director of Energy Projects, on January
6 21, next year.

7 (Slide.)

8 MS. KANKUS: Does anybody have any questions on
9 the Commission's stuff, the process, or milestones?

10 (No response.)

11 MR. SMITH: We have about the same group we have
12 this afternoon, so we've probably covered everything. Are
13 there any other comments for the record?

14 MR. HELFRICH: Michael Helfrich, Lower
15 Susquehanna Riverkeepers, representing Stewards of the Lower
16 Susquehanna.

17 Since I have you all here, I'm going to be
18 submitting written study requests and other written
19 information.

20 One of our big concerns is the mortality rates
21 involved in the Project. We would like to know more about
22 the mortality rates. We kind of feel that because they're
23 pumped up first and then pumped back down, we'd have more
24 concern about this here, that's running through turbines
25 twice.'

1 We're already concerned about the dams, but here,
2 you're running it through twice. I haven't seen what we
3 have. We have some telemetry studies, but I'd really like
4 to understand what it looks like during the week. What
5 happens on Monday? What happens on Tuesday?

6 We need a full week-long study to assess the
7 differences, instead of just taking one day.

8 From my experience to date, I have the feeling
9 that some days might operate differently than other days,
10 particularly and possibly based on the idea that the
11 reservoir only has that ten feet left, so you possibly have
12 many more fish in that last ten feet, if they were smart
13 enough to stay away from the turbines for the first four
14 days.

15 So, we'd like to definitely see more studies on
16 the mortality issues and understand those better.

17 There is a concern that I have about dissolved
18 oxygen. I have a feeling that there is not much of an
19 effect between Muddy Run and the Conowingo Pool, but
20 somewhere within the system, we have a major decline in
21 dissolved oxygen between Holtwood and Conowingo.

22 We do have the impact from Peach Bottom's release
23 of hot water, which, by the way, just to let you know, on
24 approximately July 18, 2007, I was coming down through with
25 65 paddlers, and the water temperature, a tenth of a mile

1 down from that power plant, was 102 degrees, so, almost a
2 mile down the River.

3 The vastness of the Conowingo Pool, was not able
4 to absorb at that time, the thermal pollution coming from
5 Peach Bottom. I know this is not about Peach Bottom, but
6 because we're looking at the whole system, I think we should
7 understand the dissolved oxygen effect, from the reservoir
8 to the Conowingo Pool, so that we can put those in
9 perspective with the effects from the thermal issues and
10 from the pooling of the River itself.

11 That, by itself, has an effect on the dissolved
12 oxygen.

13 I'm glad to see eel and shad studies and I'm very
14 interested in the eel, and I'm sure you've probably heard of
15 the new research showing the connection between the eel and
16 the most abundant mussel -- or what was; we're not sure if
17 it still is, but what was the most abundant fresh water
18 mussel in the Susquehanna system, the Eastern *Elliptio* or
19 *Elliptio complanata*.

20 Research has shown that the American Eel is, if
21 not the unique host, the nearly unique host. There are
22 three other species that seem to have some hosting ability,
23 but their hosting ability is relatively minor in comparison
24 with the American Eel, so we are very, very concerned about
25 any effects on migration, once we get them back up into the

1 system.

2 Since we are having to look 30 years into the
3 future here, even though we're not seeing the eels that much
4 in the River yet, we do have to understand what pumping at
5 night while the eels are trying to make their way up river,
6 could possibly do to the eel migration.

7 I recognize that that's not here yet, but in
8 these proceedings, I understand that we have to look 30
9 years ahead, so I would like to at least have you be looking
10 at these things.

11 If you can give me just one more second, I think
12 I had one other thing on my list.

13 (Pause.)

14 MR. HELFRICH: I did have a question about the
15 blades in the turbine, or how many segments are there within
16 the turbine?

17 MS. KANKUS: I'll have to get back to you on
18 that. I don't know it off the top of my head.

19 MR. HELFRICH: So we have a 120-RPM thing going
20 around, which means that half a second, those turbines are
21 going around, so there are six sections. Every one 1/12th
22 of a second, there's a blade swinging by.

23 Although things do look blurred when you're
24 looking at it, individually, can you imagine that it's going
25 by every 12th of a second? I do have concerns.

1 I have experience down below the pump station,
2 where I've seen many small fish, which we were kind of under
3 the misunderstanding that small fish could get through
4 pretty easily, but when I was down there in my kayak, I did
5 see lots of little small fish, little baby catfish, and
6 today we only saw one catfish chopped in half, but I've
7 been out there on other days when we saw hundreds out in
8 that area.

9 I had some concerns from citizens that have been
10 utilizing the River and the islands, and even areas across
11 the River, about the noise from this facility over the
12 weekends when they're trying to use the recreational areas.

13 So I'm just conveying those concerns to you, and
14 would hope that maybe we can at least take a look at this.
15 I know that some of my members are concerned, members of the
16 Stewards of the Lower Susquehanna, are concerned about this.

17 Anything that you can do to look at this -- I
18 have no specifics, just a request from the public to take a
19 look at possibly the sound, and the necessity and angle of
20 the lighting, as well. It's not something that I really
21 work on, but I have had those requests from citizens, so I'm
22 sharing those with you.

23 I think, for right now, those are all the
24 comments I have. Thank you very much.

25 MR. SMITH: Anyone else? Any questions for us?

1 (No response.)

2 MR. SMITH: Thanks for coming.

3 (Whereupon, at 7:25 p.m., the Scoping Meeting was
4 concluded.)

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25