### Hacklabin reaktoriprojektiin ( http://kirjoitusalusta.fi/hacklab-reactor ) tarvittavat videopätkät

### Filmaukset labilla, vapaaehtoisia näyttelijöitä kaivataan, näyttelytaidot ja irtoparta optionaalisia!

Video consists of ~10-30 sec clips where character walks into picture, does something or calls control room, and walks out afterwards. When calling the control room, the clip is stopped and restarted at the time where the technician is waiting for the control room to pick up, so that it can be freezed there while the phone rings in the simulator. The clips can then be played in any order, and there can always be some video of the location.

Language is english with russian accent (hollywood russian accent is ok, doesn't need to be very good). See e.g. <u>http://www.videojug.com/film/how-to-do-a-russian-accent</u>

Filming is done on location in hacklab house.

#### Video sequences for various plant technicians

- Video of location with no technician for 2 sec, 5 sec, 10 sec.
- Technician reports problem on device nr x, and usually requests for it to be stopped or something done for it. (Usually it ceases to function, but it might also have been jammed at the current position.) (Might also be a request to not run a device too high / low until it is fixed, instead of requiring to stop it)
- Technician reports that device x has been fixed, and can be restarted or used again.
- Technician reports that control room started a device while repairs where ongoing, and assistant z has died. There are 2-3 different assistants per location. For last one, technician reports bitterly that no more repairs can be done at that location.
- Technician walks in, does something idle, and walks out
- Technician walks in, repairs / works on some equipment, and walks out
- Technician walks in, answers phone, says everything is under control. There should be 2-3 normal ones, and 1-3 where the technician becomes more and more agitated about the repeated disturbance.
- Accident is happening, lights failing, technican runs in, panics or other response to emergency, and leaves.
- Accident is happening, lights blink, no technician
- Emergency lights (power out), no technician

Boss and Tutor characters don't need to walk in / out of the screen, as they are not monitorable on CCTV, they just call you or can be called.

### Scenes

- Machiny scenes
  - Reactor main pumps
    - Pumps 1, 2, 3, and 4 can fail
    - Filmed in some place with largish looking pump looking things
    - Actor: CreepyGoblin
  - Steam exchanger Done!
    - Actor: Jautero
    - Steam exchanger 1 and 2 can fail.
    - Filmed in boiler room
  - Electricity control center

- Actor: Harald
- To be redone.
- Generator 1 and 2 can fail
- Turbines 1 and 2 can fail
- External power can fail
- Emergency diesel generators can fail
- Filmed in old electricity room
- River water pump room optional
  - Actor: zzorn
  - To be redone.
  - Pumps 1 & 2 can fail.
- Cooling water pumps and tanks Done!
  - Cooling water pump or tank 1 or 2 can fail
  - Emergency cooling water pump can fail
  - Filming location? Someplace with lots of pipes
  - Actor:
- More normal room scenes

## • Regional Energy Bureau Politruck Rupert ('boss' of players)

- Actor: **Open!**
- Rupert sits at desk with large insigna of energy bureau behind, and some status symbols on desk. Not subject to the normal closed circuit TV, so doesn't need to enter and exit the frame between each scene, just calls and closes the phone. Rupert always calls the players, never the other way around.
- Filming location: Maybe conference room? (with wood panel background)
- Introduction speech / tutorial
  - "Welcome, new control technicians, congratulations for your promotion! I hope you will do well, or I must send you to Siberia like control technicians before you. I tell you how much power we need, you deliver it, da? Nuklear expert Dimitri will explain to you the controls."
  - (after Dimitris speech) "Are you ready? Slowly increase the power too 2000 megawatt. I will let you know when we need some other power".
  - "Good, now give me 1000 megawatt more, there is chilly night coming."
- Adjust power
  - Several ones, some in absolute increments or decrements, some in absolute numbers, some in percentages
  - "Tractor factory is having big production plan, we need 500 megawatt more!"
  - "Tractor factory has run out of wheels, so no more tractors for a bit. Drop your output with 500 megawatts"
  - "There is imperialist turkey festival in foreign hotel, they need 10 megawatt more for roasting birds. bah."
  - "Party is arranging festival in honor of the motherland, night will be full of light. You need to be adding 200 megawatt"
  - "You make too little electricity, we need at least 100 megawatt more"
  - "Increase power by 63 megawatts"
  - "you are too low, 30 megawatt more"
  - "one more megawatt"
  - "you make too much electricity! We can not put it anywhere! reduce power by 500 megawatt!"
  - "pull back 300 megawatt"
  - "reduce 15 megawatts"

- "you are too high, take off 10 megawatts"
- "one less megawatt"
- "increase power a little bit"
- "there, keep this power level!"
- "this is good power level, keep this"
- "decrease power a little"
- "Where is my power? I can not wait all day, increase output!"
- "You idiots are producing too much power! reduce reduce!"
- "It is quiet night now, pull back power to half"
- "Helsingrad coal plant has fire! We need you to double your energy output to cover for the loss!"
- "Energy secretary requires demonstration of nuclear power plant capacity for the party meeting! Quickly increase the output to over 8000 megawatt!
- "Motherland demands more. Increase power by 10 percent"
- "I will get honored workers medal and vacation if I increase output by 50 percent, so increase power by 50 percent"
- I am throwing huge party for party. I need 20 megawatts for special effects.
- etc
- Feedback speeches
  - "Are you falling asleep?! We need the power yesterday!"
  - "Are you wanting to experience Siberia? Give me power or you will be cold!"
  - "What are you doing with our powerplant?! You are breaking it apart, Idiots!"
  - "You are doing great! I will recommend you for medal of hero worker!"
- Success speech
  - "You have done the motherland proud! I shall recommend you all for workers medal!"
- Fail to deliver correct power speech
  - "I ask you for power, you give me nothing. Well, now I give you Siberia."
  - "I say, not so much power. But you give too much power, burn powerlines and cause chaos. You will be moved to Siberia.
- Blew up plant speech
  - "You destroyed great nuclear plant of motherland! You go to Siberia and never come back!"
- TODO: Imposing logo on wall behind desk, militarish hat / uniform, medals!

# • Nuclear expert Dimitri ('tutor' of players) - Optional, do later

- Actor: Open!
- Dimitri sits at desk or indicator panel, looks or feels a bit like Einstein. Not subject to the normal closed circuit TV, so doesn't need to enter and exit the frame between each scene, just calls / answers and closes the phone. Players can call Dimitri for tips, or Dimitri can call players with advice.
- Filming location: Maybe conference room? (with blackboard in background and rotating chair?)
- Introductory explanation
  - "Hello, I am Dimitri, professor on nuclear physics from Helsingrad University. I will be giving you advice on runing nuclear reactor, but you will need to be doing the running yourselves. To start with, you see the reactor control panel, with many buttons and many lights. The buttons are used to lift and sink control rods into the reactor core, they control how fast the nuclear reaction is, and how much heat is generated. The bigger control panel with large buttons is the control panel for the rest of the plant. From there, you control the cooling

system of the reactor, and the turbines that make electricity of the steam coming from the reactor. On the top of it, you can see overview of whole nuclear plant system. And finally at this panel you can see the other rooms in the plant, and there is videophone system that will ring if there is problem somewhere. Good luck!"

- Situation specific advice (dimitri calls players to tell these)
  - "Reactor is too hot, add more water!"
  - "Now you put too many control rods in, reactor has gone out. Pull some out, carefully!"
  - "You have too many control rods out, reaction is getting too intense. Put some control rods in!"
  - "Fuel rods are overheating and jumping up! You should send brave technician to reactor floor and stomp down fuel rods that glow white!"
  - "There is not enough cooling for reactor, pump in more cooling water!"
  - **TODO**: Some more
- General tips (these Dimitri tells if players call him)
  - On controlling reactor
    - "Nuclear reactor is controlled with control rods. A control rod absorbs neutrons, and slows down fission reaction. Control rod can be moved more or less into reactor, so it slows it down more or less."
    - "Some control rods are going in from top, some are going in from bottom. You can see this from the control rod indicator, it is numbered clockwise when rod goes in from top and counter clockwise when rod goes up from bottom"
    - "If water get too hot, it boil away in reactor. Water absorbs neutrons, but steam does not, so reactor will have more neutrons, and heat up more"
    - "Controlling nuclear reactor is like driving very large ship. You move control rod, reactor slowly follow. You move many control rods, nothing happen at first, then boom! much happen at once!"
    - "If steam forms inside reactor, it will react with fuel rod and make hydrogen. When hydrogen collects, boom! Hydrogen explosion! Not good"
    - "RBMK reactor uses graphite between fuel rods to slow neutrons, so they can collide more and increase fission. Graphite grow very hot, over 700 degrees celsius. If air get into cooling system, graphite will start to burn, not good, very hard to put out."
  - On communication
    - "When getting request to increase or decrease power, I find it good practice to write it down on paper, so I remember"
    - "You can press buttons under tv screen to see locations around plant, or to call me."
  - On plant operation
    - "Remember to keep water fowing, if water stop, reactor heat up, not good"
    - "Nuclear plant need regular maintenance, otherwise machines will fail and pipes will break. But there is no maintenance planned yet for five years, so watch out."
    - "When machine is being repaired, do not start it up, or repair technician may get hurt"
  - General
    - "There is manual for plant laying around somewhere. You should read it

well!"

- "Radioactivity is not so dangerous, is actually healthy in small dose. You can put it in toothpaste! It glow in dark!"
- "RBMK reactors are like cargo train. Boring to run, but if operator go to sleep, boom! there is crash!"
- "RBMK reactor can be used for making plutonium for bomb, you do not even need to stop reactor to take out fuel rod. Plant construction is top secret because of this, beware of foreign spies!"
- Responses to being called repeatedly (first some general tip is played, afterwards these)
  - "You are doing fine, just continue like that"
  - "I don't have any more advice at the moment"
  - "I'm busy, call again later"
  - "Sorry, but I can not help you from here. You have to manage on your own!"
  - "Hello again, how is it going? Sorry, I can't hear you, there is sputnik on radio now. You have to call afterwards"